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1 Cryptic p
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6 MHC class
4 Cat aller
6 Topo V Hh
0 Human pkb
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cc -map) composition. The HMW-map composition was isotated true.

Cc homogenate by gel filtration, with each fraction being analysed for the composente by gel filtration, with each fraction being analysed for the cc presence of proteins that bound to IgE present in mite-allergic dog cc antisera. The HMW-map composition comprises maph (a 109 kD protein) and cc encoding them, may be used in therapeutic compositions to modify an cc animal's hypersensitivity reaction to mite allergens. Animals that may be treated include mammals and birds, especially felines, canimes, equines, thumans, other pets, and work or domestic animals. The proteins or cc fragments may also be used to diagnose allergies via a skin test. The proteins and peptides can also be used to raise antibodies, which have a variety of potential uses. For example, they can be used as vaccines to cansively immunise animals against dust mite hypersensitivity, as cc positive controls in test kits and as tools to recover desired dust mite callergens from a mixture of proteins
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13-MAY-1998;
02-SEP-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mite allergen protein; map; high molecular weight; HMW-map; allergy; house dust mite; IgE; immunoglobulin E; allergen; mapA; mapB; hypersensitivity reaction; therapy; treatment; diagnosis; human; feline;
                                                                                                                      Sequence 13
                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 3; Page 69; 154pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel high molecular weight Dermatophagoides nucleic acid polypeptides used to modify an animals' hypersensitivy to mite allergens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-052700/04
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98US-0085295P.
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Pred. No. 0.00013;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             binding of proteins to IgE, to prevent immunocomplex formation, thus reducing hypersensitivity responses to mite allergens, and as vaccines against mite allergen hypersensitivity. Sequences AAU96314-AAU96342 represent Der HMW-map polypeptides of the invention
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                                                  28-APR-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New mite allergenic protein isolated from Dermatophagoides, designated Der HMW-map protein, useful as a vaccine for treating mite allergy.
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                                                                                                                                               AAW45120 standard;
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Human cartilage glycoprotein 39 derived peptide #21

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          epitope present on human cartilage glycoprotein 39 (HC gp-39), and cautoantigen in rheumatoid arthritis. The invention relates to peptides consisting of 16-55 amino acid residues comprising at least one of the following 19 sequences: LVCYYTSWS; FLCTHIIYS; IYSFANIS; LKTILSVGG; FIKSVPPPI; FDGLDLAWL; LYPGRRDKQ; YDIAKISQH; LDFISIMTY; FISIMTYDF; FRQGEDASP; YAVGYMLRL; MIRLGAPAS; LAYYEIDF; LRGATVHRT; YLKDRQLAG; LAGAMVWAL; WALDLDDF; or LDLDDFQGS. They can be used medically in antigen specific immunosuppressive therapy, particularly the treatment of T-cell mediated destruction of articular cartilage in autoimmune diseases (e.g. rheumatoid arthritis). They can also be used to detect activated autoreactive T cells in an individual. The peptides have a specific the immune system intact, unlike the non-specific suppressive effect of immunosuppressive drugs, and do not cause toxic side effects. The peptides are predominantly recognised by autoreactive T cells from rheumatoid arthritis patients, but rarely by those from healthy donors
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Major Histocompatibility Complex; MHC; CD8; CD4; immunosuppressive; antidabetic; antirheumatic; antiarthritic; neuroprotective; antiinflammatory; gene therapy; T cell response; autoimmune disorde; graft-versus-host disease; graft rejection; rheumatoid arthritis; celiac disease; dermatitis herpetiformis; diabetes; multiple sclero; Crohn's disease; Psoriasis; human leukocyte antigen.
                                                                                                                                                                                                                          Human leukocyte antigen A sub-type peptide region 110-130 group
                                                                                                                                                                                                                                                                                                22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                    ADI80376 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide suitable for use in antigen specific immunosuppressive therapy resembles or mimics epitope present on HC gp-39, so inducing systemic immunological tolerance to rheumatoid arthritis auto:antigen.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9740068-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-OCT-1997
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5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DKQNYLALVREL 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DKQHFTTLIKEM 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 16; 82pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96EP-00201106
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54.7%;
41.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 35; DB
Pred. No. 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                response; autoimmune disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       resembles or mimics an 39 (HC qp-39)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                    multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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RESULT 5
AAY99022
ID AAY9
XX
AC AAY9
AC AAY9
AC AAY9
AC HLA
XX
DE HLA

AAY99022 standard; peptide;

13

HLA class II 07-AUG-2000

binding antigen epitope peptide #211

(first entry)

맑 S

21

Similarity 6; Conserv DKQNYLALVREL DGKNYIALNEDL

Conservative

w ••

Indels

0

Gaps

0

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The invention relates to a novel modified Major Histocompatibility
CC Complex (MHC) molecule or a nucleic acid encoding the modified MHC
CC CD4 is inhibited, but it can present the same peptide or peptides as
CC unmodified molecules of the MHC type, which is for use in medicine. The
CC cell presenting molecules of the MHC type, which is for use in medicine. The
CC cell presenting molecules of the MHC type, which is for use in medicine. The
CC cell presenting molecules of the MHC type, which is for use in medicine. The
CC cell present modified molecules of the MHC type, by causing the cell to
CC present modified molecules of the MHC type; a cell, which presents
CC molecules of a selected MHC type and the modified molecules of the
CC can present the same peptide or peptides as unmodified MHC molecules or
CC its complementary sequence; a vector comprising the molecules or
CC its complementary sequence; a vector comprising the molecule acid molecule
CC incomplementary sequence; a vector. The modified MHC molecule has the
CC following activities: immunosuppressive, antidiabetic, antirheumatic,
CC antiarthritic, neuroprotective, and antiinflammatory. The nucleic acid
CC encoding the modified MHC molecule, as well as the nucleic acid
CC disoare. The modified MHC molecule, as well as the nucleic acid
CC encoding the molecule, are useful in the manufacture of a medicament for
CC useful for treating an autoimmune disorder (which may be due to
CC disease, or Psoriasis. This sequence represents a human leukocyte antigen
CC disease, or Psoriasis. This sequence represents a human leukocyte antigen
CC disease, or Psoriasis. This modified MHC molecule of the invention.
Query Match
Best Local S
Matches 6
                                                                                                                                                                  Sequence 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 11; 107pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New modified Major Histocompatibility Complex (MHC) molecule or nucleic acid encoding the MHC molecule, useful in medicine, particularly useful for treating autoimmune disorders, e.g. graft-versus-host disease or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-MAR-2001; 2001GB-00007628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-MAR-2002; 2002WO-GB001499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-OCT-2002
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Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jakobsen BK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200277030-A2
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                                          48.4%;
50.0%;
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    Score 31; DB 5;
Pred. No. 2.1e+02;
3; Mismatches 3
                                                                                 Length
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RESULT 6
ADW33519
ID ADW3
XX
AC ADW3
XX
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                                                                                                                                                                                                                                                                                                        CC are derived from various antigens for various human leucocyte antigen CC class DR molecules, representative of the world wide population. The CC peptide/analogue binds to an HLA class II molecule at an IC-50 of less CC than or equal to 1,000 nM. The pharmaceutical can be used to induce a CC helper T cell response. The pharmaceutical focuses the immune response CC chronic viral diseases and cancer. Examples of diseases that can be treated using the peptide containing pharmaceutical include autoimmune CC gravis), allograft rejection, allergies, lyme diseases that can be treptococcal endocarditis or glomerulonephritis and food hypersensitivities. The peptide epitopes can be used to enhance immune CC hypersensitivities. The peptide epitopes can be used to enhance immune CC passinst other immunogens administered with the peptides post-cancer, hepatitis B, hepatitis C, AIDS, renal carcinoma, cervical CC carcinoma, lymphoma, and condyloma acuminatum. The peptides may also be used to make monoclonal antibodies useful as potential diagnostic or therapeutic agents. The peptides may also be useful as diagnostic or therapeutic agents. The peptides may also be useful as diagnostic or conditionals will be at substantial risk of development of appropriate T and B cell epitopes should allow the colonyment of epitope based vaccines particularly towards conserved conceptions of pathogens which are characterized by high sequence concerved the conserved acconserved concerved and malaria
                                                                                                                                                                                                                               Query Match
Best Local S
Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immune response; chronic viral disease; cancer; autoimmune disease; rheumatoid arthritis; multiple sclerosis; myasthenia gravis; AIDS; allograft rejection; allergy; lyme disease; hepatitis; prostate cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to a new pharmaceutical composition comprising a unit dose form of a peptide, or analogue, comprising an epitope selected from those represented by peptides AAY98812-Y99339 which are derived from various antigens for various human leucocyte antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       glomerulonephritis;
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                     ADW33519;
                                                         ADW33519 standard; peptide;
                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New compositions containing immunogenic peptide epitopes for various class II DR molecules useful for inducing helper T cell response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-097143/08
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                                                                                                                                                                                                                               Similarity 6; Conserv
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                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                            KQNYLAL 8
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                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                 46.9%;
85.7%;
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                                                           13
                                                                                                                                                                                                                               Score 30; DB
Pred. No. 1.9e
0; Mismatches
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                                                                                                                                                                                                                                                 DB 3; 1
1.9e+02;
                                                                                                                                                                                                                                                                   Length 13;
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ADW34752
ID ADW3
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AC ADW3
AC ADW3
DX 10-N
XX
DE HLA
DE HLA
XX
XX
Vir.
KW MHC
KW Vire
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                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cc from 30 lists given in the specification. Also disclosed is a method for conducing a cytotoxic T cell response against a pre-selected antigen in a compation texpressing a specific MHC class I allele by contacting cytotoxic T cells from the patient with the composition cited above. The composition comprises an epitope that is joined by an amino acid linker. Crack to an HLA molecule on the antigen-presenting cell, where when an A2 crestricted cytotoxic lymphocyte (CTL) is present, a receptor of the CTL chinds to a complex of the HLA molecule and the epitope. Specifically claimed are peptides having allele-specific binding motifs for HLA. The compositions and methods are useful for preventing, treating or cdiagnosting viral diseases and cancer. The poptide epitopes are useful as cdiagnostic agents for evaluating immune responses, for making antibodies and for evaluating efficacy of a vaccine. Sequences given in ADM29251-CC ADM37745 represent epitopes of the invention as given in Tables 2-31.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
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Virucide; cytostatic; gene therapy; vaccine; epitope; cytotoxic T cell; MHC class I; CTL; HTL; A2-restricted cytotoxic lymphocyte; HLA; viral disease; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            binding motifs for HLA, us
viral diseases and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New composition comprising at least one peptide having allele-specific binding motifs for HLA, useful for preventing, treating or diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-OCT-2000; 2000US-0242350P
20-APR-2001; 2001US-0285624P
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                                                                                                                         HLA binding
                                                                                                                                                                                         10-MAR-2005
                                                                                                                                                                                                                                                                                                            ADW34752 standard; peptide; 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a composition comprising at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 52-379; 382pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-441519/41.
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                                                                                                                      epitope #5502.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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85.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 30; DB 7; Le
Pred. No. 1.9e+02;
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Unidentified

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ARESULT 8
ARAGOTS
ID AARG
XX AARG
AC AARG
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DT 25-M
DT 01-J
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bound to an HLA molecule on the antigen-presenting cell, where when an AZ reservicted cytotoxic lymphocyte (CTL) is present, a receptor of the CTL binds to a complex of the HLA molecule and the epitope. Specifically claimed are peptides having allele-specific binding motifs for HLA. The compositions and methods are useful for preventing, treating or diagnosing viral diseases and cancer. The peptide epitopes are useful as diagnostic agents for evaluating immune responses, for making antibodies and for evaluating efficacy of a vaccine. Sequences given in ADW29251-ADW37745 represent epitopes of the invention as given in Tables 2-31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to a composition comprising at least one peptide having an isolated, prepared epitope selected from any of the sequences from 30 lists given in the specification. Also disclosed is a method for inducing a cytotoxic T cell response against a pre-selected antigen in a patient expressing a specific MHC class I allele by contacting cytotoxic T cells from the patient with the composition cited above. The composition comprises an epitope that is joined by an amino acid linker. The epitope is admixed or joined to a CTL or HTL epitope. The epitope is bound to an HLA molecule on the antigen presenting cell, where when an Aller and the composition comprises an epitope that is joined by an amino acid linker.
                   29-SEP-1994
                                                                                                                                                                      Lolium
                                                                                                                                                                                                                                                                                        AAR60745 standard; peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 13
                                                   WO9421675-A2
                                                                                                                  Lolium p
                                                                                                                                                                                                       25-MAR-2003
01-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          binding motifs for HLA, us viral diseases and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New composition comprising at least one peptide having allele-specific binding motifs for HLA, useful for preventing, treating or diagnosing
                                                                                   Lolium perenne
                                                                                                                                                                                                                                                          AAR60745;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 52-379; 382pp; English.
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20-APR-2001;
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                                                                                                                    perenne pi;
                                                                                                                                                                      perenne
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                                                                                                                                                                                                                                                                                                                                                                                                           2 KONYLAL 8
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2001US-0285624P.
                                                                                                                                                                                                     (revised)
(first entry)
                                                                                                                  protein allergen; Lol pI; ryegrass pollen allergen; Phl pI.
                                                                                                                                                                    protein allergen internal sequence LPI-16.10
                                                                                                                                                                                                                                                                                                                                                                                                                                                             46.9%;
85.7%;
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Pred. No. 1.9e+02;
0; Mismatches 1
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RESULT 9
ADM358066
ID ADM358066
ID ADM358066
AC ADM3
AC ADM3
XX HAA
CE HLA
XX Viru
KW Viru
KW WHIC
KW Viru
KW WHIC
KW Vira
KW L19-0
PM 18-0
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PM 18-0
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Best Local
                                                                                                  New composition comprising at least one peptide having allele-specific binding motifs for HLA, useful for preventing, treating or diagnosing viral diseases and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Virucide; cytostatic; gene therapy; vaccine; epitope; cytotoxic MHC class I; CTL; HTL; A2-restricted cytotoxic lymphocyte; HLA; viral disease; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the treatment and diagnosis of sensitivity to ryegrass pollen protein, pollen proteins that are immunologically related to Lol pI e.g. Dac gI, Phl pI and Poa pI. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAQ73596 is the PCR generated full length clone c26j, which encodes Lol pI (AAR60703) a major protein allergen of Lolium perenne (ryegrass). Internal peptides isolated from Lol pI, which contain at least one T ce epitope are described in AAR60710-R60757. These peptides can be used in the treatment and diagnosis of sensitivity to ryegrass pollen protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Isolated peptide(s) of Lol or p I, major protein allergen of species Lolium perenne. - useful for diagnosis and treatment of sensitivity to rye-grass pollen allergen.
                                                 Claim 1; Page 52-379; 382pp; English.
                                                                                                                                                                                                          WPI; 2003-441519/41
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20-APR-2001;
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                                                                                                                                                                                                                                                                                                                 (EPIM-)
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5; Conserv
                                                                                                                                                                                                                                                                                                                 EPIMMUNE INC
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2001US-0285624P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93US-00031001
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Pred. No. 2.2e
3; Mismatches
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2.2e+02;
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The invention relates to a composition comprising at least one peptide

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RESULT 10
ADW34573
ID ADW34
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Best Local
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having an isolated, prepared epitope selected from any of the sequences from 30 lists given in the specification. Also disclosed is a method for inducing a cytotoxic T cell response against a pre-selected antigen in a patient expressing a specific MHC class I allele by contacting cytotoxic T cells from the patient with the composition cited above. The composition comprises an epitope that is joined by an amino acid linker. The epitope is admixed or joined to a CTL or HTL epitope. The epitope is
                                                                                                                                                                                                                                                           Claim 1;
                                                                                                                                                                                                                                                                                                                viral diseases and cancer.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sette A,
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20-APR-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HLA binding epitope #5323
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                                                                                                                                                                                                                                                                                                                                          composition comprising at .
ding motifs for HLA, useful
                                                                                                                                                                                                 invention relates to a composition comprising at least one peptide
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                                                                                                                                                                                                                                                        Page 52-379; 382pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sidney J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
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2001US-0285624P
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                                                                                                                                                                                                                                                                                                                                          least one peptide having allele-specific least one peptide having or diagnosing
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2;
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DKEGFLNKVRE

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Matches Query Match Best Local

9 Similarity

Conservative

Mismatches

Indels

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Gaps

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DB .1e+02;

46.9%;

DKONYLALVRE 11

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RESULT 11
AAW97099
ID AAW977
XX AAW97
XX AAW97
XX AAW97
XX Therm
KW Therm
KW Therm
KW TO-JF
XX PYTOC
XX PA (TAK1
XX Uemo)
XX WPI;
XX Therr
PT Therr
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                                                                                                                               AAW97099-104 represent peptides isolated from the cell fluid obtained after rupture of Pyrococcus furiosus DSM3638. The peptides are derived from thermostable polypeptide factors which bind to, and promote the DN synthesis activity of DNA polymerase. The polymerase related factors cabe used to provide more efficient in vitro DNA synthesis and amplification systems (e.g. for polymerase chain reaction) by using the factors in conjunction with a DNA polymerase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW97099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW97099 standard; peptide; 20
                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                           Example
                                                                                                                                                                                                                                                                                                                                                                                                           Thermostable polypeptide factors promoting the activity of DNA polymerase - for improvement of DNA synthesis and amplification in vitro.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-095751/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Uemori
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9900506-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pyrococcus furiosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Thermostable in vitro DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide from cell fluid obtained after rupture of P. furiosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bound to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TAKI ) TAKARA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 KONYLALVRE 11
                                                                                                                                                                                                                                                                                                                                                           3; Page 34; 177pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         an
                                                                                    20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sato Y,
                                                                                    ĀĀ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptide factor; DNA synthesis synthesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SHUZO CO LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97JP-00320692
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-JP002845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fujita T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                46.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 30; DB Pred. No. 2.4e 2; Mismatches
Score 30; I
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Miyake K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mukai H,
                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7;
                         Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           activity; DNA polymerase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ζ,
                                                                                                                                                                 by using the
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RESULT 13
AAW45121
ID AAW45
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AC AAW45
AC AAW45
XX
DT 28-AF
XX
DE Human
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                                                                                                                                                                                                                                                                                                       RESULT 12
AAM42730
                                                                                                                                                                                                                                                                                                                             The present sequence is one of a large number of complementary peptide CC ligands generated from Mycoplasma genitalium genome sequences. These especific complementary peptides interact with their relevant target CC specific complementary peptides interact with their relevant target CC proteins encoded by the microbial genome. They are capable of antagonising or agonising specific interaction of a protein with another protein or receptor and are thus useful as reagents and drugs, and as CC lead ligands to facilitate drug design and development. They are useful as tools for functional genomic studies, reagents for the configuration CC of high-throughput screens, as a starting point for medicinal chemistry manipulation, for peptide mimetics and as therapeutic agents. The CC analysis and acquisition of peptide sequences facilitates understanding CC of protein-protein interactions. The method allows for analysis of an CC complementary peptides includes both intermolecular (between proteins) and intermolecular (within a protein) sequences
                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                         Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Complementary peptide ligands as reagents and drugs for drug discovery programs and as lead ligands to facilitate drug design and development, are generated from microbial genome sequences.
Human cartilage glycoprotein 39 derived peptide #22
                                 28-APR-1998
                                                                                             AAW45121 standard; peptide; 16
                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-514238/56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Roberts GW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mycoplasma genitalium; complementary peptide; ligand; protein-protein interaction; drug design; intermolecu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAM42730 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 2; Page 55; 161pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycoplasma genitalium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mycoplasma genitalium intermolecular complementary peptide, SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-OCT-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200142278-A2
                                                                                                                                                                                                         5 YLALVRELK 13
                                                                                                                                                                                                                                       Similarity
5; Conserv
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                                                                                                                                                                           FLSLVKEVK
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                                                                                                                                                                                                                                        Conservative
                             (first entry)
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                                                                                                                                                                                                                                                     45.3%;
55.6%;
                                                                                                                                                                                                                                   Score 29; DB 4; Len;
; Pred. No. 2.1e+02;
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                                                                                                                                                                                                                                                                      Length 10
                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                       Gaps
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TX SX FX EX EX SX EX

Human 18-SEP-2001 AAG95826;

complementary peptide,

SEQ

ij NO:

2020

(first entry)

Human; complementary peptide; ligand; drug discovery; drug design.

WO200142277-A2

AAG95826 RESULT 14

AAG95826 standard; peptide;

10

밁 Ś

Matches Query Match Best Local

4.

Conservative

٠<u>.</u>

QNYLALVRELK 13 QHFTTLIKEMK

Similarity

45.3**%**; 36.4**%**;

Score 29; DB 2; Pred. No. 3.6e+0; Mismatches

JB 2, 3.6e+02; 2;

0

Gaps

0;

Length 16; Indels

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The present sequence represents a peptide which resembles or mimics an cepitope present on human cartilage glycoprotein 39 (HC gp-39), an autoantigen in rheumatoid arthritis. The invention relates to peptides consisting of 16-55 amino acid residues comprising at least one of the following 19 sequences: LVCYYTSWS; FLCTHIYS; INTSTANTS; LKTLLSVGG; FRGQEDASP; YAVGYMLRL; MLRLGAPAS; LAYYEICDF; LUGATVHRT; YLKURQLAG; CFRGQEDASP; YAVGYMLRL; MLRLGAPAS; LAYYEICDF; LUGATVHRT; YLKURQLAG; CLAGAMVWAL; WALDLDDF; or LOLDDFGCS. They can be used medically in antigen specific immunosuppressive therapy, particularly the treatment of T-cell mediated destruction of articular cartilage in autoimmune diseases (e.g. rheumatoid arthritis). They can also be used to detect activated autoreactive T cells in an individual. The peptides have a specific immunosuppressive drugs, and do not cause toxic side effects. The peptides are predominantly recognised by autoreactive T cells from rheumatoid arthritis patients, but rarely by those from healthy donors
Sequence 16 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide suitable for use in antigen specific immunosuppressive therapy resembles or mimics epitope present on HC gp-39, so inducing systemic immunological tolerance to rheumatoid arthritis auto:antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Boots AMH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Articular cartilage; immunosuppressive therapy; antigen; autoantigen; immunological tolerance; T-cell; human cartilage glycoprotein 39; HC gp-39; rheumatoid arthritis; epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ALKU ) AKZO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-OCT-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Verheijden GFM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 16;
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RESULT 15
ABP68019
ID ABP68
XX ABP68
XX ABP68
XX Baci

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to a set of complementary peptide ligands generated from the human genome. The complementary peptides interact with their relevant target proteins encoded in the human genome. They can be used as reagents in drug discovery and as lead ligands to facilitate drug design and development. The present sequence is a complementary peptide provided
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A set of peptide ligands consisting of specific complementary peptides to proteins encoded by genes of the human genome, useful in an assay for screening and identifying of one or more novel peptides which are drug candidates or pro-drugs.
                                                            Example 2; Page 21; 134pp; French
                                                                                                                                                                                                                                                            Freyssinet G,
                                                                                                                                                                                                                                                                                                                                                                                                                             19-MAR-2001; 2001FR-00003691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FR2822157-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacillus thuringiensis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pepsin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bacillus thuringiensis; insecticide; toxin; Cry; pepsin cleavage site;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bacillus thuringiensis toxin Cry related peptide #12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABP68019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABP68019 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 4; Page 332; 646pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-DEC-1999;
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                                                                                                                                                                                                                                                                                                                   (AVET ) AVENTIS CROPSCIENCE SA.
                                                                                                                                                                                                                                                                                                                                                                       19-MAR-2001; 2001FR-00003691.
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                                                                                                                modified Cry protein, useful as insecticide, comprises at least one itional pepsin cleavage site to reduce persistence in mammalian gut.
                                                                                                                                                                                                      2003-002439/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N
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3.2e+02;
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present invention describes a modified Cry protein (I) that is

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RESULT 16
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The present invention describes a modified Cry protein (I) that is sensitive to pepsin and comprises at least one additional pepsin claavage site (PCS). Also described: (a) increasing pepsin sensitivity of Cry proteins by incorporating at least one extra PCS; (b) polymucleotides (II) that encode (I); (c) chimeric genes (CG) that contain a promoter, (II) and terminator; (d) expression or transformation vector (III) that contains CG; (e) host organism (IV) transformed with (III), also, where the organism is a plant, its parts and seeds; (f) production of (I) by growing (IV); and (g) mono- or polyclonal antibodies (Ab) directed against (I). (I) has insecticide activity. (I) can be used as
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                                                                                                                                                                                                                                                                                                                                                                      Example 2; Page 21; 134pp; French
                                                                                                                                                                                                                                                                                                                                                                                                                                      New modified Cry protein, useful as insecticide, comprises at least one additional pepsin cleavage site to reduce persistence in mammalian gut.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Freyssinet G,
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Best Local
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19-JUL-2002;
19-JUL-2002;
03-MAR-2003;
contain a nucleic acid encoding a mutant HSV protein or a nucleic acid encoding the polypeptide sufficient for virus-like particle assembly but devoid of late-domain motifs. The nucleic acid is within an HSV genome. The genome is devoid of late domain motifs capable of effecting viral budding. The composition also comprises a compound capable of interfering with the protein-protein interaction between a host cell protein capable of binding a late domain motif and a HSV protein containing a late domain motif is and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV protein containing a late domain motif and a HSV p
                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to cells displaying herpes simplex virus (HSV) altered budding phenotype which are useful for the manufacture of a medicament for treating HSV infection. The medicament further comprises an adjuvant capable of stimulating cellular immune response e.g. II-2, IL
                                                                                                                                                                                                                                                                                                                                        an adjuvant capable of stimulating cellular immune response e.g. IL-4, IL-12, IL-18 or gamma-interferon. The cells are human cells and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 14;
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60.0%;
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Pred. No. 4.3e
2; Mismatches
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RESULT 18
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4, II-12, II-18 or gamma-interferon. The cells are human cells and contain a nucleic acid encoding the polypeptide sufficient for virus-like particle assembly but devoid of late-domain motifs. The nucleic acid is within an HSV genome. The genome is devoid of late domain motifs capable of effecting viral budding. The composition also comprises a compound capable of interfering with the protein-protein interaction between a host cell protein capable of binding a late domain motif and a HSV protein containing a late domain motif. The composition further comprises another HSV protein or its immunogenic fragment, and/or a nucleic acid encoding the other HSV protein or the immunogenic fragment. The present sequence is a mutant HSV peptide, derived from the wild-type peptide ADJ38601, used to illustrate
                                                                                                                                                                                                                                                                                                                                                                                                                   19-JUL-2002;
19-JUL-2002;
19-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunogenic fragment, and/or a nucleic acid encoding the other protein or the immunogenic fragment. The present sequence is a peptide, derived from the wild-type peptide ADJ38601, used to i the invention.
                                                                                                                                                                       (HSV) altered budding phenotype which are useful for the manufacture of medicament for treating HSV infection. The medicament further comprises an adjuvant capable of stimulating cellular immune response e.g. II-2,
                                                                                                                                                                                                                                                                         Use of cells displaying herpes simplex virus (HSV) altered budding phenotype for the manufacture of a medicament for treating HSV infection
                                                                                                                                                                                                                The present invention relates to cells displaying herpes simplex virus
                                                                                                                                                                                                                                                Example
                                                                                                                                                                                                                                                                                                                     WPI; 2004-123282/12
                                                                                                                                                                                                                                                                                                                                                Morham
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-2003; 2003WO-US022828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2004009027-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human herpesvirus
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                                                                                                                                                                                                                                                                                                                                                                            (MYRI-) MYRIAD GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
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                                                                                                                                                                                                                                                                                                                                              Zavitz
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; 2002US-0397477P.
; 2002US-0397479P.
; 2003US-0451903P.
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                                                                                                                                                                                                                                                68;
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                                                                                                                                                                                                                                                                                                                                              <u>,</u> ~
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15-MAY-1992;
15-JAN-1993;
                                                                                                                                                                                                                         The sequences given in AAR41975-82 are peptides derived from a human T cell reactive feline protein. These peptides are used in a therapeutic composition which is useful in treating diseases which involve an immune response to a protein antigen. This composition may be used to induce tolerance in a mammal to Dermatophagoides, Felis, Ambrosia, Lolium, Cryptomeria, Alternaria, Alder, Betula, Quercus, Olea, Artemesia, Plantago, Parietaria, Canis, Blattella, Apis, Periplaneta and to autoantigens in humans. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cats, bees,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New peptide(s) for inducing of an allergen administered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1993-320744/40.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tolerance; mammal; Dermatophagoides; Felis; Ambrosia; Lolium; Canis
Cryptomeria; Alternaria; Alder; Betula; Quercus; Olea; Artemesia;
Plantago; Parietaria; Blattella; Apis; Periplaneta; autoantigen; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human T cell reactive feline protein fragment
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21-APR-1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (IMMU-) IMMUNOLOGIC PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention.
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                                                                                         Similarity 5; Conser
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                                           DKQNYLALVREL 12
                                                                                                                                                                                                                                                                                                                                                                                                                                          Fig 3; 107pp;
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(first entry)
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92US-00884718.
93US-00006116.
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                                                                                                            43.8%;
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subcutaneously,
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                                                                                         Score 28; DB
Pred. No. 5.5e
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Pred. No. 5.1e+02;
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treating sensitivity to
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                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
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RESULT 21
AAB28946
ID AAB2

AAB28946 standard; peptide;

16

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AAB28946

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RESULT 20
AAY51484
ID AAY51484
ID AAY51484;
XX
AC AAY51484;
XX
AC AAY51484;
XX

DT 22-MAY-2000 (first entry)
XX

DE Human TRFP derived peptide C.
XX

T-cell reactive feline protein; T
KW down regulation; immune response;
KW sensitivity; cat protein allergen
XX

DE Homo sapiens.
XX

OS Homo sapiens.
XX

PD 01-FEB-2000.
XX

PP 02-SEP-1994; 94US-00300928.
XX

PP 02-SEP-1991; 91US-0062276.
PR 28-FEB-1991; 91US-00687311.
PR 25-MAR-1992; 92US-00884718.
XX

PF 13-DEC-1991; 91US-00867311.
PR 15-JAN-1993; 93US-00066116.
XX

PR 25-MAY-1993; 93US-00066116.
XX

PR 15-JAN-1993; 93US-00066116.
XX

PR 25-MAY-1993; 93US-00066116.
XX

PR 15-JAN-1993; 93US-00066116.
XX

PR 25-MAY-1993; 93US
                                                                                                                        Query Match
Best Local S
Matches 5
                                                                                                                                                                                                                                                                                                 This invention describes a novel peptide (I) of human T cell reactive feline protein (hTRFP) having at least one T cell epitope recognized by a T cell receptor specific for the human T cell reactive feline protein, the peptide consisting of at least 7-30 amino acids, and having an amino acid sequence derived from an amino acid sequence comprising 94, 96, 97, 109, or 111 residues, given in the specification. The peptides down regulate the immune response to the allergen. The peptides have reduced immunoglobulin compositions for treating sensitivity to a cat protein allergen in a subject. This sequence represents the human TRFP derived peptide used in trhe method of the invetnion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peptides of human T cell reactive feline protein for treating sensitivity to cat protein allergens comprise at least one T cell epitope recognized by a T cell receptor specific for the human T cell reactive feline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T-cell reactive feline protein; TRFP; T cell epitope; T cel down regulation; immune response; allergen; immunoglobulin
ω
                                                          ш
                                                                                                                        Similarity
5; Conserv
   DKENALSLLDKI
                                                          DKQNYLALVREL
                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein allergen; human.
                                                                                                                                                  43.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kuo
                                                                                                                        <u>ن</u>
                                                                                                                                                        Score 28; I
Pred. No. 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Briner
                                                                                                              DB 3; 1.5e+02; 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŢŢ,
                                                                                                                                                                                  Length 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Morville
                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cell receptor;
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                                                                                                                        Gaps
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RESULT 22
AAY90112
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                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                    Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                              The present invention relates to the detection of sensitivity to a cat protein allergen by combining a blood sample from a subject with a peptide of human T cell reactive feline protein (hTRFP). This method and the hTRFP peptides are useful for diagnosing, preventing and treating cat allergies by reducing or abolishing an individual's allergic response to a cat allergen. DNA encoding the TRFP may be used as probes to locate equivalent sequences present in other species. These may further be used to study the mechanism of immunotherapy of cat allergy, and to design modified derivatives, analogues or functional equivalents useful in immunotherapy. The present sequence was used in the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-MAR-1992;
15-MAY-1992;
15-JAN-1993;
02-SEP-1994;
                          Cat; TRFP; human T-cell reactive feline protein; cat protein allergen; house dust; Fel d I; cat allergy; Felis domesticus sensitivity; therapy; diagnosis; goat; sheep; horse; rabbit; dog.
                                                                                        12-SEP-2003
13-JUL-2000
                                                                                                                                        AAY90112 standard; peptide; 16
                                                                                                                                                                                                                                                                             Sequence 16 AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                  Detecting, preventing and treating sensitivity to cat protein allergen comprises combining a biological sample with a human T cell reactive feline protein and determining the extent of binding that occurs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gefter ML,
                                                                                                                                                                                                                                                                                                                                                                                                                Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-NOV-1989;
28-FEB-1991;
         Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US6120769-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide C derived from T cell reactive feline protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (IMMU-) IMMULOGIC PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-APR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-DEC-1991
                                                                   TRFP derived peptide, peptide
                                                                                                                                                                                                               سر
                                                                                                                                                                                                                                    Similarity
5; Conserv
                                                                                                                                                                                                     DKQNYLALVREL 12
                                                                                                                                                                                             DKENALSLLDKI 14
                                                                                                                                                                                                                                                                                                                                                                                                               Fig 17; 106pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Garman RD,
                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                       (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92US-00857311.
92US-00884718.
93US-00006116.
94US-00300928.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human T cell reactive feline protein; hTRFP; immunotherapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 91US-00662276.
91US-00807529.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-00431184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89US-00431565.
                                                                                                                                                                                                                                              43.8%;
41.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Greenstein JL,
                                                                                                                                                                                                                                   Score 28; DB
Pred. No. 5.5e
5; Mismatches
                                                                                                                                          ₿
                                                                   a
                                                                                                                                                                                                                                DB 3;
5.5e+02;
2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bond JF
                                                                                                                                                                                                                                                      Length 16;
                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                    0
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03-NOV-1989;
28-FEB-1991;
13-DEC-1991;
                                                                                                                                                        This sequence is a peptide derived from the human T cell reactive feline protein (TRFP) of the invention. The protein is a cat protein allergen, and was isolated from a vacuum bag extract obtained by affinity purification of house dust collected from several homes with cats. TRFP is composed of two covalently linked peptide chains, and is also referred to as Fel d I. TRFP and its peptides are useful for reducing or preventing the adverse effects that exposure to cat allergens normally has on cat allergic individuals (i.e. to desensitise individuals to cat allergens or block the effect of the allergens). TRFP also used in methods of diagnosing sensitivity to Felis domesticus in an individual. DNA sequences present in other species, e.g. goat, sheep, horse, rabbit and dog, that may be usefil in diagnostic and/or therapeutic applications. (Updated on 12-SEP-2003 to standardise OS field)
                                                                                                              Sequence 16 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New human T cell reactive feline protein, allergic individuals to cat allergens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-181812/16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Morgenstern JP, Griffith IJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JAN-1993;
02-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US6025162-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-APR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (IMMU-) IMMULOGIC PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-MAY-1992;
Similarity 41. 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fig 17; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89US-00431565.
91US-00662276.
91US-00807529.
92US-00857311.
92US-00884718.
93US-00066116.
94US-00300928.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95US-00430944
                            43.8%;
Score 28; DB 3; Le
Pred. No. 5.5e+02;
5; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rogers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             useful for desensitizing
                                                     Length 16;
  Indels
  0
  Gaps
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Claim

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RESULT 23
AAY87687
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                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                           Matches
03-NOV-1989;
             27-APR-1995;
                                                       Felis sp.
                                                                      T-cell reactive antiallergic; T
                                                                                             Feline human TRFP peptide C.
                                                                                                                          AAY87687;
                                                                                                                                        AAY87687 standard; protein; 16 AA
                            11-APR-2000
                                           US6048962-A.
                                                                                                           22-AUG-2000
                                                                                                                                                                              w
                                                                                                                                                                                           1 DKONYLALVREL 12
                                                                                                                                                                              DKENALSLLDKI 14
                                                                                                           (first entry)
89US-00431565
              95US-00430014
                                                                       feline protein;
cell stimulator;
                                                                              TRFP; Fel
                                                                       TRFP; Fel d diagnostic;
                                                                              H
                                                                       ; cat allergen immunotherapy.
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Best Local (
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13-DEC-1991;
25-MAR-1992;
15-MAY-1992;
15-JAN-1993;
02-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       peptides cause sensitivity so as to selectively use them to desensitize a cat sensitive individual. Purified TRFP is also useful for studying the mechanism of immunotherapy of cat allergy and to design modified derivatives, analogs or functional equivalents that are more useful in immunotherapy against cat allergy. DNA sequences encoding TRFP are useful as probes to locate equivalent sequences present in other species (goats, sheep, dogs, rabbits or horses) that may be useful in diagnostics and/or therappeutics. Fully defined and characterized TRFP provides complete and a very simple desensitization therapy. This sequence represents a human T cell reactive feline protein (also known as Fel d I) derived peptide C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention describes a novel naturally occurring cat protein allergen (I), human T cell reactive feline protein (TRFP), comprising two different covalently linked peptide chains with a molecular weight of 20 kD, 40 kD or 130 kD under non-reducing conditions and 5 kD or 10-18 kD under reducing conditions and 5 kD or 10-18 kD under reducing conditions. The products of the invention have antiallergic activity and act as human T cell stimulators. TRFP is useful for reducing or preventing the adverse effects of cat allergens on cat allergic individuals and in ex vivo diagnostic tests to determine which
                 WO2003046204-A2
                                                   Mus musculus.
                                                                                                                      anti-cryptic collagen; HUIV26; variable region light chain; mouse;
                                                                                                                                    heavy CDR; cryptic collagen epitope; solid tumour; new blood vessel growth; angiogenesis; tumour growth; cytostatic; collagen agonist; collagen antagonist; cancer metastasis;
                                                                                                                                                                                        grafted antibody; complementarity determining region; CDR; light CDR;
                                                                                                                                                                                                                          Mouse HUIV26 antibody mutant light chain CDR amino acid sequence SeqID76
                                                                                                                                                                                                                                                              29-JAN-2004
                                                                                                                                                                                                                                                                                                ADD94191;
                                                                                                                                                                                                                                                                                                                              ADD94191 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         which is described in the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human T cell reactive feline protein useful for reducing or abolishing individual's allergic response to cat allergen comprising different covalently linked peptide chains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Greenstein JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kuo M,
                                                                                                                                                                                                                                                                                                                                                                                                                  w
                                                                                                      mutant; mutein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMMULOGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5; Col 89-90; 106pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rogers BL,
                                                                                                                                                                                                                                                                                                                                                                                                                    DKENALSLLDKI 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                   DKQNYLALVREL 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91US-00662276.
91US-00807529.
92US-00857311.
92US-00884718.
93US-00006116.
94US-00300928.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Griffith IJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gefter ML, Mors-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     43.8%;
                                                                                                                                                                                                                                                                                                                                  17
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••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 28; DB
Pred. No. 5.5e
5; Mismatches
                                                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Morgenstern JP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 3; L. 5.5e+02; 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Brauer AW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             two
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RESULT 25
ADT94021
ID ADT944021
XX ADT94
XX ADT94
XX PRECOM
CONT 27-JA
CONT 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention relates to a nover planton. The invention regions fragment comprising one or more complementarity determining regions (CDRs) of a defined light CDR and a heavy CDR with at least one amino acid (aa) substitution where the antibody has specific binding activity for a cryptic collagen epitope. The growth of all solid tumours requires new blood vessel growth, angiogenesis, inhibition of which is an approach to limiting tumour growth. The invention may allow development of therapeutics with a cytostatic activity as a collagen agonist or antagonist. The invention is useful for diagnosing and treating disorders associated with angiogenesis, tumour growth and/or cancer metastasis. The present sequence is the amino acid sequence of a mutant mouse anti-cryptic collagen site antibody HUIV26 variable region light chain CDR which may be used during the creation of an antibody of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New cryptic collagen antibody with one or more complementarity determining regions, useful for diagnosing and treating disorders associated with angiogenesis, tumor growth and/or cancer metastasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Recombinant Fel d 1; rFel d 1; Felis domesticus allergen Fel d 1 chain 1; Fel d 1 chain 2; fusion product; cat all antiallergic; domestic cat; mutant; mutein; tryptic fragm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 17 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-NOV-2001;
06-DEC-2001;
                            Groenlund H,
                                                                                                                                                                                                                                                                             04-NOV-2004
                                                                                                                                                                                                                                                                                                                                         WO2004094639-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rFel d 1(2+1)) fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-JAN-2005 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADT94021 standard; peptide; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This invention relates to a novel grafted antibody or its functional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-NOV-2002; 2002WO-US038147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-2003.
                                                                                                                                                                                                                22-APR-2004; 2004WO-IB001583
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                                                                                           (CLIN-) CLINOVATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11 NKKNYLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 DKONYLA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ
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Search completed: January 26, 2006, 07:57:55 Job time : 48.1552 secs
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                                                                                                                                                                                                                                                                                                                    The invention relates to a recombinant Felis domesticus allergen 1 (rFel Cd 1) fusion product comprising a Fel d 1 chain 2 and a CC linker, e.g. a carbon-nitrogen bond or a short peptide linker, which CC links the N-terminal amino acid of one chain to the C-terminal amino acid CC of the other chain. Also disclosed are (i) a homodimer consisting of two non-covalently associated fusion products, (ii) a DNA sequence encoding CC the fusion product, (iii) an expression vector having the DNA sequence CC inserted into it in an operable form, (iv) a host cell transformed with CC the expression vector, (v) a pharmaceutical composition comprising an CC immunotherapeutical manunt of the fusion product and/or the homodimer and a pharmaceutical carrier, excipient or diluent, (vi) a kit, for CC diagnosing cat allergy, (viii) a process for preparing the fusion product and/or the cCC and (ix) a process for preparing a recombinant Fel d 1 polypeptide. The CC and (ix) a process for preparing a recombinant Fel d 1 polypeptide. The CC are useful for preparing a medicament for the homodimer CC at allergy. The composition, kite, and method are useful for diagnosing, treating or preventing cat allergy. This sequence represents a tryptic CC fragment of the rFel d 1 (2+1) fusion product.
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Best Local Similarity
Matches 5; Conserv
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/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
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US-08-430-944D-22
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ALIGNMENTS

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APPLICANT: BOOTS, ANNA M.H.
APPLICANT: VERHEIJDEN, GILBERTUS F.M. APPLICANT: VERHEIJDEN, GILBERTUS F.M. APPLICANT: VERHEIJDEN, GILBERTUS F.M. TITLE OF INVENTION: IMMUNOSUPPRESSIVE THERAPY FILE REFERENCE: 0/96198 US
CURRENT APPLICATION UMMBER: US/09/171,705
CURRENT FILING DATE: 1999-02-09
NUMBER OF SEQ ID NOS: 78
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 21
LENGTH: 16
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                   ; OTHER INFORMATION: Description of Artificial Sequence: DERIVED FROM ; OTHER INFORMATION: SEQUENCE OF HUMAN CARTILAGE (HC) -39 PROTEIN US-09-171-705-21
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Patent No. 6455686
GENERAL INFORMATION:
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APPLICANT: Munter, Shirley Wu
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: NOVEL DERMATOPHAGOIDES NUCLEIC ACID MOLECULES,
TITLE OF INVENTION: AND USES THEREOF
FILE REFERENCE; AL-2-C3
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1 Similarity 100.0%; Pred. No. 6.4e-05;
13; Conservative 0; Mismatches 0;
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DKOHFTTLIKEM 16
                              DKONYLALVREL 12
                                                            Conservative
                                                                           54.7%;
41.7%;
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; Pred. No. 10;
5; Mismatches
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TITLE OF INVENTION: NOVEL PEPTIDES SUITABLE FOR USE IN ANTIGEN SPECIFIC TITLE OF INVENTION: NOVEL PEPTIDES SUITABLE FOR USE IN ANTIGEN SPECIFIC TITLE OF INVENTION: IMMUNOSUPPRESSIVE THERAPY
FILE REFERENCE: 0/96198 US
CURRENT APPLICATION NUMBER: US/09/657,757
CURRENT FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: US/09/171,705
PRIOR FILING DATE: 1998-10-23
NUMBER OF SEQ ID NOS: 78
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 21
LENGTH: 16
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Best Local Similarity
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                                                                                                                                                                                                                                                                              APPLICANT: MUKAI, Hiroyuki
APPLICANT: ASADA, Kiyozo
APPLICANT: KATO, Ikunoshin
TITLE OF INVENTION: DIA POLYMERASE-RELATED FAV
FILE REFERENCE: 1422-408PCT
CURRENT APPLICATION NUMBER: US/09/446,504
CURRENT FILING DATE: 1999-12-23
PRIOR PPLICATION NUMBER: PCT/JP98/02845
PRIOR FILING DATE: 1998-06-24
PRIOR FILING DATE: 1997-06-26
PRIOR APPLICATION NUMBER: JP 9-187496
PRIOR APPLICATION NUMBER: JP 9-20692
PRIOR APPLICATION NUMBER: JP 9-320692
PRIOR FILING DATE: 1997-11-27
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; TYPE: PRT
; ORGANISM: Pyrococcus furiosus
US-09-446-504-7
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PATENT NO. 6881824
GENERAL INFORMATION:
APPLICANT: BOOTS, ANNA M.H.
APPLICANT: VERHELIDEN, GILL
APPLICANT: VERHELIDEN, GILL
APPLICANT: VERHELIDEN, GILL
APPLICANT: VERHELIDEN, GILL
APPLICANT:
                                                                                                                                                                                                               NUMBER OF SEQ ID NOS:
SOFTWARE: PatentIn V
SEQ ID NO 7
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Patent No. 6218150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: UEMORI, Takashi
APPLICANT: SATO, Yoshimi
APPLICANT: FUJITA, Tomoko
APPLICANT: MIYAKE, Kazue
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ORGANISM: Artificial Sequence
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Query Match
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; ORGANISM: Pyrococcus furiosus
US-09-712-266-7
                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 22
LENGTH: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 618420
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                                                                           Matches
                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: O/96198 US
CURRENT APPLICATION NUMBER: US/09/171,705
CURRENT FILING DATE: 1999-02-09
NUMBER OF SEQ ID NOS: 78
                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: BOOTS, ANNA M.H.
APPLICANT: VERHEIJDEN, GILBERTUS F.M.
TITLE OF INVENTION: NOVEL PEPTIDES SUITABLE FOR USE IN ANTIGEN SPECIFIC
TITLE OF INVENTION: IMMUNOSUPPRESSIVE THERAPY
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PRIOR TILING DATE: 1999-12-23
PRIOR APPLICATION NUMBER: PCT/JP98/02845
PRIOR FILING DATE: 1998-06-24
PRIOR APPLICATION NUMBER: JP 9-187496
PRIOR TILING DATE: JP 9-187496
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CURRENT FILING DATE: 2000-11-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: ASADA, KİYOZO
APPLICANT: KATO, IKUNOSHİN
TITLE OF INVENTION: DNA POLYMERASE-RELATED FACTORS
FILE REFERENCE: 1422-408PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: UEMORI, Takash
APPLICANT: SATO, Yoshimi
                                                                                                                                                                                                        ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ENGTH: 20
                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: JP 9-320692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1997-06-26
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QHFTTLIKEMK 11
                                 QNYLALVRELK 13
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MIYAKE, Kazue
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36.4%;
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                                                                       Score 29; DB 2; Lo
Pred. No. 1.2e+02;
5; Mismatches 2;
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Pred. No. 97;
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APPLICANT: BOOTS, ANNA M.H.
APPLICANT: VERHEJUDEN, GILBERTUS F.M.
APPLICANT: VERHEJUDEN, GILBERTUS F.M.
APPLICANT: VERHEJUDEN, GILBERTUS F.M.
APPLICANT: VERHEJUDEN, GILBERTUS SUITABLE FOR USE IN ANTIGEN SPECIFIC TITLE OF INVENTION: INMUNOSUPPRESSIVE THERAPY
FILE REFERENCE: 0/96198 US
CURRENT APPLICATION NUMBER: US/09/657,757
CURRENT FILING DATE: 2000-09-08
CURRENT FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 22, Appli
Patent No. 6019972
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CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/807,529
FILING DATE: December 13, 1991
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: AMY E. MANDRAGOURAS
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: 002.6US
TELEPHONE: (617) 227-7400
TELEPAX: (617) 227-5941
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TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/300,928C
                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: ULL
STREET: WALTHAM
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                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: US,
ZIP: 02145
                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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Local Similarity 36.4%;
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FENTION: PEPTIDES FOR HUMAN T CELL REACTIVE FELINE
                                                                                                                                                                                                                                                                                                                ASCII text
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IMMULOGIC PHARMACEUTICAL CORPORATION
                                                                                                                                                                                                                                                                                                                                                                        Floppy disk
                                                                                                                                                                                                                                                September 2, 1994
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                                                              002.6US (IMI-044)
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Pred. No. 1.2e+02;
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                                                                                                                            US-08-430-944D-22
                                                                                                                                                                                                                                                                                               SOFTMALE: Batentin Release #1.0, Version #1.25
SOFTMARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/88/430,944D
FILING DATE: 28-APR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/430,014
FILING DATE: 27-APR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/300,928
FILING DATE: 02-SEPT-1994
APTORNEY/AGENT INFORMATION:
NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: IM-044DV2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No. 6025162
GENERAL INFORMATION:
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Best Local Similarity
                                                                            Query Match
Best Local (
                                                               Matches
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: peptide FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Bruce L. Rogers et al.
TITLE OF INVENTION: A HUMAN T CELL REACTIVE FELINE PROTEIN
TITLE OF INVENTION:
                                                                                                                                             MOLECULE TYPE:
FRAGMENT TYPE:
                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: STREET:
                                                                                                                                                                                                                                   TELEPHONE: (617)742-4214
TELEPHONE: (617)742-4214
TELEPHONE: (617)772-4214
TELEPHONE: (617)742-4214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                         LENGTH:
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DKENALSLLDKI 14
                            DKONYLALVREL 12
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internal
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41.7%;
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                                                             Score 28; DB
Pred. No. 1.7e
5; Mismatches
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Pred. No. 1.7e+02;
                                                                              DB 2;
1.7e+02;
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RESULT 10

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Query Match
Best Local Similarity
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; FRAGMENT TYPE: internal
US-08-430-014-22
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                                                                                                                                                                                                                                                                                                                            RESULT 11
                                                                                                                                                                                                        ; Patent No. 6120769
; GENERAL INFORMATION:
; APPLICANT: Bruce L. F
TITLE OF INVENTION: A
; TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 22, Applicat Patent No. 6048962 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                Sequence 22, Application US/08431184 Patent No. 6120769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (617) 227-5941 INFORMATION FOR SEQ ID NO: 22:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08
FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAWE: AMY E. MANDRAGOURAS
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: 002.6US(IMI-044)
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS
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                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                        NUMBER OF SEQUENCES:
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CTTY: WALTHAM
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                                                                                   COUNTRY:
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                                                                                                                     CITY: Boston
                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE:
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                                                                     02109
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                                                                                                       Massachusetts
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                                                                                                                                     28 State Street
                                                                                     USA
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VENTION: PEPTIDES FOR HUMAN T CELL REACTIVE FELINE
VENTION: PROTEIN (TRFP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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41.7%;
                                                                                                                                                                                                                          Rogers et al.
A HUMAN T CELL REACTIVE FELINE PROTEIN
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Pred. No. 1.7e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity Matches 5; Conserv
              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/006,116
FILING DATE: 15-JAN-1993
APPLICATION NUMBER: US 07/884,718
FILING DATE: 15-MAY-1992
APPLICATION NUMBER: 07/857,311
FILING DATE: 25-MAR-1992
                                                                                                                                  SOFTWARE: ASCII TEXT CURRENT APPLICATION DATA: APPLICATION NUMBER: PCT, FILING DATE: 1930325 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (617)742-4214
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
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FRAGMENT TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 27-APR-PRIOR APPLICATION NUMBER:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 02-SEPT-199.
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII TEXT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 1M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Amy E. Mandragourae REGISTRATION NUMBER: 36,2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE:
                                                                                                                                                                                                                                                                                                                                              CITY: Boston
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                                                                                                                                                                                                                                                                                                                                                              60 State Street
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Briner, Thomas J.
Morville, Malcolm
TVENTION: PEFTIDES USEFUL FOR TOLERIZATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16 amino acids
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                                                                                                                                                                                                                                                                                                                USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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internal
                                                                                                                                                                                                                                                          Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-APR-1995
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41.7%;
                                                                                                                                                                        PCT/US93/02462
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Pred. No. 1.7e+02;
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; MOLECULE TYPE:
; FRAGMENT TYPE:
US-07-807-529A-10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compactive
COMPUTER: SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII TEXT
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/807,529A
FILING DATE: 19911213
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
OPERATOR OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPER
                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 07/662,276
FILING DATE: 28-FEB-1991
APPLICATION NUMBER: US 07/431,565
FILING DATE: 03-NOV-1989
ATTORNEY/AGENT INFORMATION:
NAME: Channing, Stacey L.
REGISTRATION NUMBER: 31,095
REFERENCE/DOCKET NUMBER: 1PC-027/imi-015
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No.
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                                                                                                                                                                                                                                                     TELEPHONE: (617) 494-
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
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LENGTH: 16 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
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FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TUMBER OF SEQUENCES:
                                                                                                  LENGTH: 19 amino
TYPE: AMINO ACID
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43.8%;
Local Similarity 41.7%;
nes 5; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
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5547669
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Greenstein, Julia L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Morvile, Malcolm
ENTION: RECOMBITOPE PEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Morgenstern, Jay
Bond, Julian F.
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internal
                                 internal
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'n NO: 10:
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Pred. No.
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Query Match Best Local Similarity

Score 28; DB 1; Pred. No. 2.1e+02;

Length 19;

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RESULT 15
US-08-430-944D-20
; Sequence 20, Application US/08430944D
""" No. 6025162
""" No. 6025162
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US-08-300-928C-20
                                                                                                                                                                                                                                                                                                                                                                                   US-08-300-928C-20
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                                                                   Patent No. 6025162
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Bruce L. Rogers et
TITLE OF INVENTION: A HUMAN T
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20, Application US/08300928C Patent No. 6019972
                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 435

PRIOR APPLICATION NUMBER: 07/807,529

APPLICATION NUMBER: 07/807,529

FILING DATE: December 13, 1991

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:
NAME: AMY E. MANDRAGOURAS

REGISTRATION NUMBER: 36,207

REFERENCE/DOCKET NUMBER: 002.6US(IMI-044)

TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (617) 227-7400
TELEPAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
STREET: 28 State Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/300,
FILING DATE: September 2, 1994
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                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEUIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
SOFTWARDE ****
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ZIP: 02145
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5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                 amino acid
xGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19 amino acids
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VENTION: PEPTIDES FOR HUMAN T CELL REACTIVE FELINE
VENTION: PROTEIN (TRFP)
                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                   internal
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Pred. No. 2.
                                                                                       al.
CELL REACTIVE FELINE PROTEIN
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2.1e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No. 6048962
GENERAL INFORMATION:
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Best Local Similarity
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APPLICATION DATE: 28-APR.1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/430,014
FILING DATE: 27-APR.1995
PRIOR APPLICATION DATA:
US 08/300,928
APPLICATION NUMBER: US 08/300,928
APPLICATION TIPORMATION:
APPLICATION TIPORMATION:
APPLICATION NUMBER: 36,207
REGISTRATION NUMBER: 36,207
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COMPUTER READABLE FORM:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS: LENGTH: 19 amino acids
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 101
CORRESPONDENCE ADDRESS:
ADDRESSEE: IMMULOGIC PHARMACEUTICAL CORPORATION
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: GEFTER, Malcolm L. et al.
TITLE OF INVENTION: PEPTIDES FOR HUMAN T CELL REACTIVE FELINE
TITLE OF INVENTION: PROTEIN (TRFP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                         PRIOR APPLICATION DATA: APPLICATION NUMBER:
       ATTORNEY/AGENT INFORMATION:
                                                                                                         APPLICATION NUMBER: US/08/430,014 FILING DATE:
                                                                                                                                                                                                                                                                                    CITY: WALTHAM
STATE: Massaci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid TOPOLOGY: linear
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REFERENCE/DOCKET NUMBER: IMI-044DV2
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                                                                                          CLASSIFICATION:
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                        CLASSIFICATION
                                       FILING DATE:
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internal
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41.7%;
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Pred. No. 2.1e+02;
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US-08-431-184-20
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 Query Match 43.8%;
Best Local Similarity 41.7%;
Matches 5; Conservative
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Patent No. 6120769
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Best Local Similarity 41.7%;
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COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PECENTIN Release #1.0, Vei
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/431,184
FILING DATE: 28-APR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/430,014
FILING DATE: 27-APR-1995
PRIOR APPLICATION NUMBER: US 08/300,928
FILING DATE: 02-SET-1994
ATTORNEY/AGENT INFORMATION:
NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: IMI-044DV3
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                       TELEFAX: (617)742-4214
NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 19 amino acids
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LENGTH: 19 amino acids
TYPE: amino acid
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEPARY. (617)
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CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Bruce L.
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                     TYPE: amino acid
TOPOLOGY: linear
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internal
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A HUMAN T CELL REACTIVE FELINE PROTEIN
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Score 28; DB 2; Le
Pred. No. 2.1e+02;
5; Mismatches 2;
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Pred. No. 2.1e+02;
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RESULT 19
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PCT-US93-02462-10
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Sequence 14, Application PC/TUS9302462 GENERAL INFORMATION:
                                                                                                                                               Best Local Similarity 41.7%;
Matches 5; Conservative
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                                                                                                                                                                                                                                      TOPOLOGY: li:
MOLECULE TYPE:
FRAGMENT TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 25-MAR-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: ASCII TEXT CURRENT APPLICATION DATA:
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ADDRESSEE: LAHIVE & COCKFIELD
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TITLE OF IN
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                                                                                                                                                                                                                                                                                                                                                                                NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: IP
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/006,116
FILING DATE: 15-JAN-1993
APPLICATION NUMBER: US 07/884,718
FILING DATE: 15-MAY-1992
APPLICATION NUMBER: 07/857,311
                                                                                                                                                                                                                                                                                  TYPE: AMINO ACID
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OPERATING SYSTEM:
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STATE: MA
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                                                                                                                        1 DKQNYLALVREL 12
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VENTION: PEPTIDES USEFUL FOR TOLERIZATION
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Garman, Richard D.
Greenstein, Julia L.
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Briner, Thomas J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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internal
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15-JAN-1993
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                                                                                                                                                          5; Mismatches
                                                                                                                                                                       Score 28; DB 4;
Pred. No. 2.1e+02;
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                                                                                                                                                                                        Length 19;
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                                                                                                                                                          Gaps
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APPLICANT: APPLICANT: APPLICANT:

> Gefter, Malcolm L. Garman, Richard D. Greenstein, Julia L.

APPLICANT:

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Best Local Similarity
"~~hes 5; Conserve
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                                                                                                                                                                                                                                                                                                Sequence 27, Application US/07807529A Patent No. 5547669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII TEXT
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/0246
FILING DATE: 19930325
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/
FILING DATE: 15-JAN-1993
APPLICATION NUMBER: US 07/
FILING DATE: 15-MAY-1992
APPLICATION NUMBER: 07/857
FILING DATE: 25-WAR-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Briner, ANDMAR APPLICANT: MOTVILLE, Malcolm
APPLICANT: MOTVILLE, MALCOLM
APPLICANT: OF INVENTION: PEPTIDES USEFUL FOR TOLERIZATION
                                                                                                             CORRESPONDENCE ADDRESS
                                                                                                                                                            APPLICANT: Kuo, Mei-chang
APPLICANT: Morvile, Malcolm
                                                                                                                                                                                             APPLICANT: Bond, Julian F.
APPLICANT: Garman, Richard D.
APPLICANT: Greenstein, Julia L.
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PRIOR APPLICATION DATA:
US 08/006,116
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
COMPUTER READABLE FORM:
                                                                                                                             TITLE OF INVENTION: RECOMBITOPE PEPTIDES NUMBER OF SEQUENCES: 76
                                             STREET: One Ken
CITY: Cambridge
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207 REFERENCE/DOCKET NUMBER: IP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 60 St
CITY: Boston
             COUNTRY: U
ZIP: 02139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
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                                                                                               ADDRESSEE:
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                                                                                                                                                                                                                                                                                  INFORMATION:
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USA
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                                                                              One Kendall Square, Building 600
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                                                                                                                                                                                                                              Morgenstern, Jay
Bond, Julian F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                               Rogers, Bruce L.
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                                                                                               IMMULOGIC PHARMACEUTICAL CORPORATION
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internal
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Pred. No. 2.2e+02
5; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 76, Application US/08300928C Patent No. 6019972
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/300,92:
FILING DATE: September 2, 1994
CILASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 07/807,529
FILING DATE: December 13, 1991
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: IPOTELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 07
FILING DATE: 03-NOV-1989
ATTORNEY/AGENT INFORMATION:
NAME: Channing, Stacey L.
REGISTRATION NUMBER: 31,0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 28 FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: PC-DOSOFTWARE: ASCII TEXT CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: GEFTER, TITLE OF INVENTION:
                                                                CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: AMY E. MANDRAGOURAS
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: 002.6US(IMI-044)
                                TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 227-7400
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FILING DATE: 19911213
CLASSIFICATION: 514
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COMPUTER: IB
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                (617)
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SYSTEM: PC-DOS/MS-DOS
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SEQ ID NO: 27:
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PEPTIDES FOR HUMAN T CELL REACTIVE FELINE
                                                                                                                                                                                                                                                                                                          PC-DOS/MS-DOS
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Pred. No. 1.7e
3; Mismatches
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1.7e+02;
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SEQUENCE CHARACTERISTICS:

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Query Match
Best Local Similarity
Marches 5; Conserve
RESULT 23
US-08-430-014-76
; Sequence 76, A
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                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/300,928
FILING DATE: 02-SEPT-1994
ATTONNEY/AGENT INFORMATION:
NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: IMI-044DV2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
                                                                                                                                                                                                                                             TELEFAX: (617)742-4214
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/430,944D FILLING DATE: 28-APR-1995 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/430,014 FILLING DATE: 27-APR-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Bruce L.
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: protein
                                                                                                                                                                                                                        LENGTH: 11 amino acids TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Boston
STATE: Massachusetts
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                                                                                                      1 DKQNYLALV 9
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amino acid
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Application US/08430014
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                                                                                                                                    Conservative
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                                                                                                                                                42.2%;
55.6%;
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55.6%;
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A HUMAN T CELL REACTIVE FELINE PROTEIN
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                                                                                                                                                Score 27;
Pred. No. 1
                                                                                                                                    Mismatches
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                                                                                                                                    DB 2,
1.7e+02;
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                                                                                                                                  1; Indels
                                                                                                                                                              Length 11;
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RESULT 24
US-08-431-184-76
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GENERAL INFORMATION:
APPLICANT: GEFTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
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Best Local Similarity 55.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Bruce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (617) 227-7400
TELEPAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 76:
SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Bruce L. Rogers et al.
TITLE OF INVENTION: A HUMAN T CELL REACTIVE FELINE PROTEIN
TITLE OF INVENTION:
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NAME: AMY E. MANDRAGOURAS
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APPLICATION NUMBER:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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TOPOLOGY: linear
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VENTION: PEPTIDES FOR HUMAN T CELL REACTIVE FELINE
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Sequence 9, Application US/09142885C

Patent No. 6737406

GENERAL INFORMATION:

APPLICANT: Kay, Anthony
APPLICANT: Larche, Mark

TITLE OF INVENTION: Cryptic Peptides and Method for Their Identification

FILE REFERENCE: 4028/75652

CURRENT APPLICATION NUMBER: US/09/142,885C

CURRENT FILING DATE: 1997-01-27

PRIOR APPLICATION NUMBER: PCT/GB97/00783

PRIOR FILING DATE: 1997-03-20

NUMBER OF SEQ ID NOS: 56

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 9

LENGTH: 16

TYPE: PRT

COGANISM: Pelis domesticus
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/430,014
FILING DATE: 27-APR-1995
PRIOR APPLICATION UNMBER: US 08/300,928
FILING DATE: 27-APR-1994
APPLICATION NUMBER: US 08/300,928
FILING DATE: 02-SEPT-1994
ATTORNEY/AGENT INFORMATION:
NAME: AMPY E. MANDERSUGUES:
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: IMI-044DV3
TELECOMMUNICATION INFORMATION:
TELEPHAN: (617)742-4214
INFORMATION FOR SEQ ID NO: 76:
SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
TYPE: amino acids
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Search completed: January 26, 2006, 08:06:59 Job time : 13.3822 secs
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US-09-142-885C-9
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Best Local Similarity 55.6%;
Matches 5; Conservative
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128.563 Million cell updates/sec
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2: 'cgn2_6/prodata/1/pubpaa/US08_PUBCOMB.pep:*

3: 'cgn2_6/prodata/1/pubpaa/US10A_PUBCOMB.pep:*

4: 'cgn2_6/prodata/1/pubpaa/US10B_PUBCOMB.pep:*

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US-09-995-529-76
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US-08-464-363-27
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S-10-225-567A-1099
S-10-225-567A-2256
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CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/292,225
PRIOR FILING DATE: 1999-04-15
PRIOR APPLICATION NUMBER: 60/098,909
PRIOR TILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/085,295
PRIOR FILING DATE: 1998-09-02
PRIOR FILING DATE: 1998-09-02
PRIOR FILING DATE: 1998-09-02
PRIOR FILING DATE: 1998-09-03
                                                            PRIOR APPLICATION NUMBER: US 09/446,504
PRIOR FILING DATE: 1999-12-23
PRIOR APPLICATION NUMBER: PCT/JP98/02845
PRIOR FILING DATE: 1998-06-24
PRIOR APPLICATION NUMBER: JP 9-187496
PRIOR FILING DATE: 1997-06-26
PRIOR APPLICATION NUMBER: JP 9-320692
PRIOR APPLICATION NUMBER: JP 9-320692
PRIOR FILING DATE: 1997-11-27
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SOFTWARE: PatentIn Ver. SEQ ID NO 7
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APPLICANT: Hunter, Shirley Wu
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: NOVEL DERMATOPHAGOIDES NUCLEIC ACID MOLECULES, PROTEINS
TITLE OF INVENTION: AND USES THEREOF
FILE REFERENCE: AL-2-C3
                                                                                                                                                                                                                                                                                                      APPLICANT: MUKAI, Hiroyuki
APPLICANT: ASADA, Kiyozo
APPLICANT: KATO, Ikunoshin
TITLE OF INVENTION: DNA POLYMERASE-RELATED
FILE REFERENCE: 1422-0494P
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: UEMORI, Takast
APPLICANT: SATO, Yoshimi
APPLICANT: FUJITA, Tomok
                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/971,309
CURRENT FILING DATE: 2001-10-05
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SOFTWARE: PatentIn Ver. ?
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                                              NUMBER OF SEQ ID NOS: 92
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TYPE: PRT
ORGANISM: Dermatophagoides farinae
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MIYAKE, Kazue
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Pred. No. 0.0002;
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; TYPE: PRT ; ORGANISM: Pyrococcus furiosus US-09-971-309-7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
US-09-573-822C-39
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SOFWARE: ProtPatent version 1.0
SEQ ID NO 39
                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/572,404B
CURRENT FILING DATE: 2000-05-17
NUMBER OF SEQ ID NOS: 4203
SOFTWARE: ProtPatent version 1.0
SEQ ID NO 2020
LENGTH: 10
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 39, Application US/09573822C
publication No. US20030199011A1
GENERAL INFORMATION:
APPLICANT: Proteom Ltd
TITLE OF INVENTION: Complementary peptide ligands generated from microbial genome sequence of the pation of the pation of the pation of the pation of the complementary peptide ligands generated from microbial genome sequence of the pation of the pation of the complement application NUMBER: US/09/573,822C
CURRENT FILING DATE: 2000-05-18
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Best Local
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                                                        Best Local Similarity
                                                                       Query Match
                                                                                                                                                                                                                                                                                                                 APPLICANT: Proteom Ltd
TITLE OF INVENTION: Complementary peptide ligands from the human genome FILE REFERENCE: Human patent
                                                                                                                           OTHER INFORMATION: sequence located in SFRS8 OR SWAP OTHER INFORMATION: Sequence 2019 in this patent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: mycoplasma genitalium
FEATURE:
                                                                                                                                                                ORGANISM: Homo Sapiens FEATURE:
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 DKQNYLAL
                                       Conservative
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                                                        43.8%;
                                                        Score 28; DB 3;
Pred. No. 3.4e+02;
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APPLICANT: Watkins, Jeffry D.
APPLICANT: Huse, William D.
APPLICANT: Tang, Ying
ITITLE OF INVENTION: Humanized Collagen Antibodies and
ITITLE OF INVENTION: Related Methods
FILE REFERENCE: P-IX 4976
CURRENT APPLICATION UNMBER: US/09/995,529
CURRENT FILING DATE: 2001-11-26
NUMBER OF SEQ ID NOS: 358
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 76
LENGTH: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 76, Application US/0999529
Publication No. US20030099655A1
GENERAL IMFORMATION:
APPLICANT: Watkins, Jeffry D.
APPLICANT: Huse, William D.
APPLICANT: Tang, Ying
TITLE OF INVENTION: Humanized Collagen Antibodies and TITLE OF INVENTION: Related Methods
FILE REFERENCE: P-IX 4976
CURRENT APPLICATION NUMBER: US/09/995,529
CURRENT TILING DATE: 2001-11-26
NUMBER OF SEQ ID NOS: 358
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 76
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                                                                           Sequence 10, Application US/08464363 Publication No. US20030035815A1 GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
FEATURE:
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Morgenstern, Jay
Bond, Julian F.
Garman, Richard D.
                                                                                                                                                                                                                                                                                                Conservative
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                                                         Rogers, Bruce L.
                                                                                                                                                                                                                                                                                                                   43.8%; Score 28; DB 3; 71.4%; Pred. No. 6.1e+02;
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71.4%;
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Pred. No. 6.1e+02;
2; Mismatches C
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; FRAGMENT TYPE:
US-08-464-363-10
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TELEPHONE: (61/) TELEPHONE: (61/) TELEPHONE: 10 NO: 10 INFORMATION FOR SEQ ID NO: 10 SEQUENCE CHARACTERISTICS: 19 amino acids
                                                                                                                                                                                                                                                                                                                 Sequence 10, Application US/104
Publication No. US20040057959A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 41.7%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/464,363
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/807,529
FILING DATE: 13-DEC-1991
APPLICATION NUMBER: US 07/662,276
FILING DATE: 28-FEB-1991
APPLICATION NUMBER: US 07/431,565
FILING DATE: 03-NOV-1989
ATTORNEY/ACENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: INI-015CN
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Kuo, Mei-chang
APPLICANT: Morvile, Malcolm
TITLE OF INVENTION: RECOMBITOPE PEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
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COMPUTER: II
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STATE: MA
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COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Lahive
                                                                                                                                                                   Kuo, Mei-chang
Morvile, Malcolm
TITLE OF INVENTION: RECOMBITOPE PEPTIDES
                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 DKONYLALVREL 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02109
                                                      CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      DKENALSLLDKI 14
                                                                                             STREET: 28 State Street
                                                                                                                                                                                                                                                                                                                                                        Application US/10463113
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Bond, Julian F.
                                                                                                                                                                                                                                                                                                  Rogers, Bruce L.
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                                                                                                             Lahive & Cockfield, LLP
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Pred. No. 6.9e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 27, Applicat Publication No. US200 GENERAL INFORMATION:
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICATION NUMBER: US/08/464,363
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/807,529
FILING DATE: 13-DEC-1991
APPLICATION NUMBER: US 07/662,276
                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII TEXT
CURRENT APPLICATION DATA:
                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Greenstein, Julia L.
APPLICANT: Kuo, Mei-chang
APPLICANT: Morvile, Malcolm
TITLE OF INVENTION: RECOMBITOPE PEPTIDES
NUMBER OF SEQUENCES: 76
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC COMPATIBLE

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: ASCII TEXT

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/463,113

FILING DATE: 16-Jun-2003

PRIOR APPLICATION NUMBER: US 07/807,529

FILING DATE: 13-DEC-1991

APPLICATION NUMBER: US 07/662,276

FILING DATE: 28-FEB-1991

APPLICATION NUMBER: US 07/662,276

FILING DATE: 28-FEB-1991

APPLICATION NUMBER: US 07/431,565

FILING DATE: 03-NOV-1989

ATTORNEY AGRENT TUNDOMBATION.
                                                                                                                                                                                                                                          COUNTRY: US
ZIP: 02109
                                                                                                                                                                                                                                                                                                                      STREET:
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AMB: AMP E. MANDATAGOURAS
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: IMI-015CN
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 742-4214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: peptide FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO: 10:
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5; Conserva
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USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 19 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/08464363
                                                                                                                                                                                                                                                                                                                        60 State Street, Suite 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Garman, Richard D.
Greenstein, Julia L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Morgenstern, Jay
Bond, Julian F.
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Pred. No. 6.9e+02;
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RESULT 10

US-10-463-113-27

; Sequence 27, Application US/104-

; Publication No. US20040057959A1

; GENERAL INFORMATION:
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Best Local Similarity
Matches 5; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; MOLECULE TYPE: protein US-08-464-363-27
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APPLICATION NUMBER: US 07/431,565
FILING DATE: 03-NOV-1989
ATTORNEY/AGENT INFORMATION:
NAME: Amy E. Mandfargouras
REGISTRATION NUMBER: 36,207
REGISTRATION NUMBER: IMI-015CN
REFERENCE/DOCKET NUMBER: IMI-015CN
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                   INFORMATION FOR SEQ ID NO: 27:
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LENGTH: 11 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                         PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/807,529
PILING DATE: 13-DEC-1991
APPLICATION NUMBER: US 07/662,276
PILING DATE: 28-FEB-1991
APPLICATION NUMBER: US 07/431,565
PILING DATE: 03-NOV-1989
ATTORNEY/AGENT INFORMATION:
NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,207
                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCLI TEXT
CURRENT APPLICATION NUMBER: US/10/463,113
FILING DATE: 16-Jun-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOTVILE, MALCOLM TITLE OF INVENTION: RECOMBITOPE PEPTIDES NUMBER OF SEQUENCES: 76
                                                                               REFERENCE/DOCKET NUMBER: IMI-015CN
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Lahive & Cockfield, LLP
STREET: 28 State Street
SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 DKQNYLALV 9
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                                                                             TELEPHONE:
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                                                              TELEFAX: (617)742-4214
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Greenstein, Julia L.
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Bond, Julian F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kuo, Mei-chang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 27; DB 2;
Pred. No. 5.7e+02;
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S. C. 144. 1

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NUMBER OF SEQ ID NOS: 965
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 163
LENGTH: 16
TYPE: PRT
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HOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 27:
US-10-463-113-27
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US-10-245-871-163
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                                                                                                                       PRIOR APPLICATION NUMBER: 09/396,813
PRIOR FILING DATE: 1999-09-14
NUMBER OF SEQ ID NOS: 905
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                Sequence 163, Application US/10253286 Publication No. US20040058881A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 163, Application US/10245871 Publication No. US20030235594A1 GENERAL INFORMATION:
                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
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                                                               ORGANISM: Felis domesticus
-10-253-286-163
                                                                                                                                                                                                   APPLICANT: XU, MINZHEN
TITLE OF INVENTION: 11-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REFERENCE: REH-2015
CURRENT APPLICATION NUMBER: US/10/253,286
CURRENT FILING DATE: 2003-01-13
PRIOR APPLICATION NUMBER: 10/197,000
PRIOR FILING DATE: 2002-07-17
PRIOR FILING DATE: 2002-07-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: 11-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES FILE REFERENCE: REH-2013
CURRENT APPLICATION NUMBER: US/10/245,871
CURRENT FILING DATE: 2003-01-09
PRIOR APPLICATION NUMBER: 10/197,000
PRIOR FILING DATE: 2002-07-17
                                                                                                                                                                                                                                                                                                                 APPLICANT: HUMPHREYS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 09/396,813 PRIOR FILING DATE: 1999-09-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: HUMPHREYS, ROBERT APPLICANT: XU, MINZHEN
 Local Similarity 55.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
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                42.2%;
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55.6%;
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                Score 27; DB 4;
Pred. No. 8.6e+02;
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Pred. No. 8.6e+02;
3; Mismatches 1
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Pred. No.
 Mismatches
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                               Length 16;
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1; Indels
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Gaps
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US-10-805-650-104
                                                                                                                                      RESULT 15
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; TYPE: PRT
; ORGANISM: Felis catus
US-10-809-689-8
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US-10-702-400-104
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                                                         GENERAL INFORMATION
                                                                             Sequence 104, Application No.
                                                                                                                                                                                                                                                                      Query Match 42.2%;
Best Local Similarity 55.6%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 8, Application US/10809689
Publication No. US20040265342A1
GENERAL INFORMATION:
APPLICANT: Eric Potter Clarkson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn version 3.1 SEQ ID NO 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
APPLICANT: BORINS, Michael
TITLE OF INVENTION: DNA POlymerase Fusions and Uses Thereof
FILE REFERENCE: 25436/2382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: PCT/GB99/00080
PRIOR FILING DATE: 1999-01-11
PRIOR APPLICATION NUMBER: G9/9800445.0
PRIOR FILING DATE: 1998-01-09
PRIOR APPLICATION NUMBER: G9/9820474.6
PRIOR FILING DATE: 1998-09-21
NUMBER OF GEO ID NOC. 1398-09-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: methods and compositions for desensitisation FILE REFERENCE: 5538/1010 CURRENT APPLICATION NUMBER: US/10/809,689 CURRENT FILING DATE: 2004-03-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/702,400
CURRENT FILING DATE: 2003-11-05
NUMBER OF SEQ ID NOS: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Borns, Michael TITLE OF INVENTION: DNA Polymerase Blends and Uses Thereof FILE REFERENCE: 25436/2364
                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS:
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TYPE: PRT
ORGANISM: Methanopyrus kandleri
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                                                                                                                                                                                                                            1 DKQNYLALV 9
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                                                                                                                                                                                             DKENALSLL 14
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                                                                                             Application US/10805650
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o. US20040197800A1
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                                                                             US20050048530A1
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62.5%;
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Pred. No. 8.6e+02
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Pred. No. 8.6e+02;
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CURRENT APPLICATION NUMBER: US/10/805,650
CURRENT FILING DATE: 2004-03-19
PRIOR APPLICATION NUMBER: US 60/457,426
PRIOR FILING DATE: 2003-03-25
NUMBER OF SEQ ID NOS: 148
SOFTWARE: Patentin version 3.1
SEQ ID NO 104
LENGTH: 16
TYPE: PRT
ORGANISM: Methanopyrus kandleri
US-10-805-650-104
                                                                                                                                                                                                                            US-10-044-692-63; Sequence 63, Application US/10044692; Publication No. US20030096344A1; GENERAL INFORMATION:
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LENGTH: 10
TYPE: PRT
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Best Local :
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PRIOR APPLICATION NUMBER: 08/650,809
PRIOR FILING DATE: 1997-05-20
NUMBER OF SEQ ID NOS: 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Bhattacharjee, J.
APPLICANT: Suvarna, Kalavati
APPLICANT: Suvarna, Kalavati
APPLICANT: Bhattacherjee, Vasker
TITLE OF INVENTION: METHODS AND REAGENTS FOR DETECTING FUNGAL PATHOGENS IN
TITLE OF INVENTION: A BIOLOGICAL SAMPLE
FILE REFERENCE: 96,247-A
CURRENT APPLICATION NUMBER: US/09/994,595
CURRENT FILING DATE: 2001-11-27
CURRENT FILING DATE: 2001-11-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Microsoft Word 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Polypeptide segment of ACVS_EMENI shown in Figure
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                             40.6%;
Local Similarity 66.7%;
es 6; Conservation
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                                 NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
                                                                     TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: THERAPEUTIC METHODS
                                                                                                                                                                                                                  APPLICANT: Cech, Thomas R.
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ADDRESSEE: Townsend and Townsend and Crew LLP STREET: Two Embarcadero Center, 8th Floor
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Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
Harley, Calvin
Andrews, William H.
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Pred. No. 8.6e
3; Mismatches
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Pred. No. 7.7e+02;
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                                                                                          DIAGNOSTIC
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US-10-044-539-63
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Sequence 63, Application US/10044539 Publication No. US20030100093A1 GENERAL INFORMATION:
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Best Local Similarity
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REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002600US
TELECOMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 63:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 08/912,951
FILING DATE: «Unknown»
APPLICATION NUMBER: US 08/854,050
FILING DATE: 09-MAY-1997
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
APPLICATION NUMBER: US 08/844,419
FILING DATE: 01-OCT-196
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
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                           TITLE OF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE DESCRIPTION: SEQ ID NO: 63:
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                                                                                                                                                                                                                                                                                                                                                                 KOSYLGVI 10
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TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: Peptide LOCATION: 1..11
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Lingner, Joachim
Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
Morin, Gregg B.
Andrews, William H.
Andrews, William H.
ANDRAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND THERAPEUTIC METHODS
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Pred. No. 8.6e+02;
3; Mismatches 1
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Best Local Similarity 50.v
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SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                   transcriptase" SEQUENCE DESCRIPTION: SEQ ID NO: 63:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Apple, Randolph T.
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002600US
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US/10/044,539
FILING DATE: 11-Jan-2002
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: peptide
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                        KQNYLALV 9
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OTHER INFORMATION: /note= "motif E peptide from Drosophila melanogaster TART non-LTR retrotransposable element reverse
                                                                                                                                                                                                                    KQSYLGVI 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
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CITY: San Francisco
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/912,951 FILING DATE: <Unknown>
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FILING DATE: 09-MAY-1997
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENGTH: 11 amino acids
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ELEFAX: (415) 576-0300
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Lingner, Joachim
Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
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Pred. No. 8.6e+02;
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KQSYLGVI 10

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                                            Matches
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Best Local Similarity
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FILING DATE: 09-MAY-1997
APPLICATION NUMBER: US 08/911,312
FILING DATE: 14-AUG-1997
APPLICATION NUMBER: US 08/912,951
FILING DATE: 14-AUG-1997
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-CCT-1997
APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-CCT-1997
ATTORNEY, AGENT INFORMATION:
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APPLICATION NUMBER: US/09/402,181
FILING DATE: 29-Sep-1997
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
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ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                         SEQUENCE DESCRIPTION: SEQ ID
                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: peptide
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REFERENCE/DOCKET NUMBER: 015389-002620US
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
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Andrews, William H.
TITLE OF INVENTION: Human Telomerase Catalytic Subunit
NUMBER OF SEQUENCES: 633
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
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KONYLALV 9
                                                                                                                                                                                                                    LOCATION: 1..11
OTHER INFORMATION: /note= "motif E peptide Drosophila melanogaster TART non-LTR
                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/10/325,810 FILING DATE: 20-Dec-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                      retrotransposable element reverse
                                                                                                                                                                                                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (415)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Ausenhus, Scott
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 11 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (415)
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                                          Çonservative
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                                                                                                                                                                                                                                                                                         Peptide
                                                               40.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    576-0300
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                                     Score 26; DB 4;
Pred. No. 8.6e+02;
3; Mismatches 1
                                                                                                                                                            NO: 63:
                                                                                       Length 11;
                                            Indels
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RESULT 20
US-10-877-124-63
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                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 63: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                  NAME: Apple, Randolph Ted
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002610US
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/877,124
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TITLE OF INVENTION: Human Telomerase Catalytic Subunit
NUMBER OF SEQUENCES: 727
                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Cech, Thomas R
                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Townsend and Townsend and Crew LLP STREET: Two Embarcadero Center, Eighth Floor CITY: San Francisco
NAME/KEY: Peptide LOCATION: 1.11 COTHER INFORMATION: /note= "motif E peptide from Drosophila melanogaster TART non-LTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                            TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                               TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: WO PCT/US97/17618
FILING DATE: 01-OCT-1997
APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/915,503 FILING DATE: 14-AUG-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/432,503 FILING DATE: 02-Nov-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 24-Jun-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                             TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 08/911,312 FILING DATE: 14-AUG-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 08/912,951
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No. US20040242529A1
                                                                                                                                                                                                         LENGTH: 11 amino acids
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Chapman, Karen B.
Morin, Gregg B.
Harley, Calvin B.
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                                                                                                                                                                                                                                                                          E: (415) 576-02
(415) 576-0300
                                                                                                              peptide
                                                                                                                                          linear
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                                                                               APPLICATION NUMBER: WO P
FILING DATE: 01-OCT-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATCHOLIN Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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Chapman, Karen B.
Morin, Gregg B.
Harley, Calvin B.
Andrews, William H.
TITLE OF INVENTION: Human Telomerase Catalytic Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/432,503
FILING DATE: 02-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE DESCRIPTION: SEQ ID NO: 63:
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
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                   NAME: Apple, Randolph Ted
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002610US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/10/877,022
FILING DATE: 24-Jun-2004
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: Two Embarcac
CITY: San Francisco
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                                                                                                                                                 FILING DATE: 14-AUG-1997
APPLICATION NUMBER: WO PCT/US97/17618
FILING DATE: 01-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 08/846,017 FILING DATE: 25-APR-1997 APPLICATION NUMBER: US 08/851,843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: California
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                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/912,951 FILING DATE: 14-AUG-1997
                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/854,050 FILING DATE: 09-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: <Unknown>
APPLICATION NUMBER: US 08/844,419
                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 06-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 18-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 08/974,549
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                                                                                                                                                                                                               APPLICATION NUMBER: US 08/915,503
                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/911,312
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ingner, Joachim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Two Embarcadero Center, Eighth Floor
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Pred. No. 8.6e+02;
                                                                                                                             PCT/US97/17885
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Townsend and Crew LLP
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US-10-877-146-63; Sequence 63, Application US/10877146; Publication No. US20050013825A1; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match 40.6%; Score 26; DB 5; Local Similarity 50.0%; Pred. No. 8.6e+02
                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA: US/10/877,146
FILING DATE: 24-Jun-2004
CLASSIFICATION: <UNKnown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lingner, Joachim
Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
Harley, Calvin B.
Harley, Calvin H.
Andrews, William H.
TITLE OF INVENTION: Human Telomerase Catalytic Subunit
NUMBER OF SEQUENCES: 727
                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/432,503
FILING DATE: 02-NOV-1999
APPLICATION NUMBER: 08/974,549
FILING DATE: <UNKNOWN-
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
FILING DATE: 18-APR-1997
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                transcriptase" SEQUENCE DESCRIPTION: SEQ ID NO: 63:
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LOCATION: 1..11
OTHER INFORMATION: /note= "motif E peptide from
Drosophila melanogaster TART non-LTR
retrotransposable element reverse
                                          APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
APPLICATION NUMBER: US 08/854,050
FILING DATE: 09-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 11 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
APPLICATION NUMBER: US 08/911,312 FILING DATE: 14-AUG-1997
                                                                                                                                    APPLICATION NUMBER: US 08/846,017 FILING DATE: 25-APR-1997
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RESULT 23
US-08-908-884-23
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Publication No. US20020138872A1
GENERAL INFORMATION:
APPLICANT: Dong et al.
APPLICATION NUMBER: US/08/908,884
FILING DATE:
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/023,851
FILING DATE: August 9,1996
APPLICATION NUMBER: 60/035,166
FILING DATE: January 10, 1997
APPLICATION NUMBER: 60/046,769
FILING DATE: May 16, 1997
ATTORNEY/AGENT INFORMATION:
NAME: Elbing, Karen L
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEPAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 63:
                                                                                                                                                                                                                                                OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                ZIP: 02110
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Dong et al.
TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                        COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
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LENGTH: 11 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO: 63:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
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LOCATION: 1.11
OTHER INFORMATION: /note= "motif E peptide from
Drosophila melanogaster TART non-LTR
retrotransposable element reverse
transcriptase"
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APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
APPLICATION NUMBER: WO PCT/US97/17618
FILING DATE: 01-OCT-1997
APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Apple, Randolph Ted
REGISTRATION NUMBER: 36,429
                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                        IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clark & Elbing LLP
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Pred. No. 8.6e+02;
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REGISTRATION NUMBER: 35 REFERENCE/DOCKET NUMBER:

35,238

00786/339004

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TOPOLOGY: linear MOLECULE TYPE: protein SEQUENCE DESCRIPTION: SEQ ID NO: 23: US-09-908-323-23
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 2
SEQUENCE CHARACTERISTICS:
LENGTH: 14 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 23, Application US/09908323
Patent No. US20020073447A1
GENERAL INFORMATION:
Query Match
Best Local Similarity
                                                                                                                                                                                            NAME: Elbing, Karen L
REGISTRATION NUMBER: 35,238
REFERENCE/DOCKET NUMBER: 00786/339004
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-428-0200
TELEPHONE: 617-428-0200
TELEPAX: 617-428-7045
INFORMATION FOR SEQ ID NO: 23:
SEQUENCE CHARACTERISTICS:
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TELEPHONE: 617-428-0200
                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/908,884
FILING DATE: <Unknown>
APPLICATION NUMBER: 60/035,166
FILING DATE: January 10, 1997
APPLICATION NUMBER: 60/046,769
FILING DATE: May 16, 1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/908,323
FILING DATE: 17-Jul-2001
CLASSIFICATION: -Unknown>
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Clark & Elbing LLP
STREET: 176 Federal Street
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TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
NUMBER OF SEQUENCES: 28
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OPERATING SYSTEM: DOS
SOFTWARE: FastSEO for Windows Version 2.0
                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                         TYPE: amino acids
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Score 26; DB 3; Length 14; Pred. No. 1.1e+03;
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                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 1242
SOFTWARE: PatentIn version 3.1
SEQ ID NO 684
LENGTH: 15
                                                                     Matches
                                                                                                      Query Match
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                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: POLYPEPTIDES THAT BIND HIV GP120 AND RELATED NUCLEIC TITLE OF INVENTION: ACIDS, ANTIBODIES, COMPOSITIONS, AND METHODS OF USE FILE REFERENCE: 215875
CURRENT APPLICATION NUMBER: US/10/084,813
CURRENT FILING DATE: 2002-02-27
PRIOR APPLICATION NUMBER: PCT/US00/23505
PRIOR PETING DATE: 2000-08-25
PRIOR PILING DATE: 2000-08-25
PRIOR PILING DATE: 2000-08-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: SAXINGER,
                                                                                                                                                            OTHER INFORMATION: Description of Artificial Sequence: binding peptide
                                                                                                                                                                             ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                  TYPE: PRT
                                                                                       / Match 40.6%;
Local Similarity 30.8%;
                                   1 DKONYLALVRELK 13
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DQGNFPLIKNLK 15
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Search completed: January 26, 2006, 08:38:34 Job time : 44.25 secs

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   of hits satisfying chosen parameters:
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1: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*

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4: /cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*

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7: /cgn2_6/ptodata/1/pubpaa/USO1_NEW_PUB.pep:*

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64
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  75621 seqs, 10829074 residues
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Maximum Match 100%
Listing first 100
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   GenCore version (c) 1993 - 2006
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summaries,
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Sequence 163, App
Sequence 13, Appl
Sequence 13, Appl
Sequence 24, Appl
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Sequence 27, Appl
Sequence 31, Appl
Sequence 6, Appli
Sequence 105, Appl
Sequence 155, Ap
Sequence 1058, A
Sequence 1058, A
Sequence 1058, A
Sequence 12381, A
Sequence 12445, A
Sequence 12445, A
Sequence 12445, A
Sequence 13581, Ap
Sequence 3581, Ap
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RESULT 2
US-11-166-412-150
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; TYPE: PRT
; ORGANISM: Felis catus
US-11-033-039-163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/11/033,039
CURRENT FILING DATE: 2005-01-11
PRIOR APPLICATION NUMBER: 10/245,871
PRIOR FILING DATE: 2002-09-17
PRIOR APPLICATION NUMBER: 10/197,000
PRIOR FILING DATE: 2002-07-17
PRIOR APPLICATION NUMBER: 09/396,813
PRIOR FILING DATE: 1999-09-14
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US-11-033-039-163
         Query Match
Best Local Similarity 66...
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Van Rompaey, Luc
APPLICANT: Tomme, Peter H.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 150, Appropriate Publication No.
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SOFTWARE: PatentIn version 3.3
EQ ID NO 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Tomme, Peter H. M.
TITLE OF INVENTION: Methods and Compositions To Promote Bone Homeostasis
FILE REFERENCE: P27, 927-D USA
CURRENT APPLICATION NUMBER: US/11/166,412
CURRENT FILING DATE: 2005-06-24
CURRENT FILING DATE: 2005-06-24
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APPLICANT: XU, MINZHEN
TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REFERENCE: REH-2017US01
                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/630,449
PRIOR FILING DATE: 2004-11-23
PRIOR APPLICATION NUMBER: 60/673,206
PRIOR FILING DATE: 2005-04-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: 60/582,704 PRIOR FILING DATE: 2004-06-24
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SOFTWARE: PatentIn version 3.3
                                                                                                                                                                                                                                     LENGTH: 19
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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Local Similarity 55.6%;
Local Similarity to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the second to the se
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5 YLALVRELK 13
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No. US20060014231A1
                                                                                   40.6%;
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Pred. No. 19;
                                                                                   Score 26; DB 7; Length 19; Pred. No. 35;
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Sequence 22, Appl
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                                                       Gaps
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; TYPE: PRT
; ORGANISM: frog
US-10-753-537-13
                                                                                                                                                                                                                                                              ; OTHER INFORMATION: fragment having properties substantially similar to that of ; OTHER INFORMATION: leucine-based motif US-11-039-268-13
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US-11-039-268-13
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Best Local Similarity bo...
"--ches 5; Conservative
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PRIOR FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin version 3.1
SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 13, Application US/11039268 Publication No. US20050276820A1 GENERAL INFORMATION:
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Publication No. US20050260230A1
GENERAL INFORMATION:
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                                                                                                                                                 Matches
                                                                                                                                                                             Query Match
Best Local
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APPLICANT: Herrington, Todd
APPLICANT: Herrington, Todd
APPLICANT: Aoki, Kei
TITLE OF INVENTION: LEUCINE-BASED MOTIF AND CLOSTRIDIAL NEUROTOXINS
TILE REFERENCE: ALLEGO14-106 (17355DIV1)
CURRENT APPLICATION NUMBER: US/11/39,268
CURRENT FILING DATE: 2005-01-19
PRIOR APPLICATION NUMBER: 09/620,840
PRIOR PILING DATE: 2000-07-21
PRIOR APPLICATION NUMBER: DIV of 09/620,840
PRIOR FILING DATE: 2000-07-21
PRIOR FILING DATE: 2000-07-21
PRIOR FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 18
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CURRENT FILING DATE: 2004-01-08
PRIOR APPLICATION NUMBER: US/09/910,346C
PRIOR FILING DATE: 2000-07-21
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APPLICANT: FERNAND
APPLICANT: HERRING
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                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                              Similarity
5; Conserv
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HERRINGTON, TODD
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83.3%;
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83.3%;
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Pred. No. 5.8e+04;
0; Mismatches 1
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Pred. No. 5.8e+04;
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CURRENT APPLICATION NUMBER: US/10/981,356A
CURRENT FILING DATE: 2004-11-04
PRIOR APPLICATION NUMBER: US 60/520,398
PRIOR FILING DATE: 2003-11-13
PRIOR APPLICATION NUMBER: US 60/557,951
PRIOR FILING DATE: 2004-03-31
NUMBER OF SEQ ID NOS: 45
SEQ ID NO 18
SEQ ID NO 18
LENGTH: 17
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US-10-981-356A-18
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; OTHER INFORMATION: Sequence is synthesized US-10-981-356A-18
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PRIOR FILING DATE: 2004-03-31
NUMBER OF SEQ ID NOS: 45
SEQ ID NO 24
                                                     GENERAL INFORMATION APPLICANT: ADAMS,
                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
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                                                                                          Sequence 18, Application US/11096046 Publication No. US20050276802A1
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Matches 4; Conserv
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TITLE OF INVENTION: SCREENING ASSAYS AND METHODS OF TUMOR TREATMENT
FILE REFERENCE: P2066R1
CURRENT APPLICATION NUMBER: US/10/981,356A
CURRENT FILING DATE: 2004-11-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR EILING DATE: 2003-11-13
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TITLE OF INVENTION: SCREENING ASSAYS AND METHODS OF TUMOR TREATMENT
FILE REFERENCE: P2068R1
                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
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ORGANISM: Artificial sequence
                                                                           INFORMATION:
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FERRARA, NAPOLEONE
FILVAROFF, ELLEN H.
MAO, WEIGUANG
                                                                                                                                                                                                                                                                            Conservative
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                                                        CAMELLIA W.
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57.1%;
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57.1%; Pred. No. 73;
Live 3; Mismatches
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Pred. No. 73;
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US-11-105-708-23
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                                                                                                                                                                                                 GENERAL INFORMATION:
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SEQ ID NO 24
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SEQ ID NO 18
LENGTH: 17
TYPE: PRT
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Best Local Similarity 57.1%;
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Best Local Similarity
APPLICANT: Pernasetti, Flavia
APPLICANT: Freimark, Bruce
APPLICANT: Van Bpps, Dennis
APPLICANT: Van Bpps, Dennis
APPLICANT: War Bpps, Dennis
APPLICANT: Brooks, Peter C
TITLE OF INVENTION: Method and Composition for Angiogenesis Inhibition
FILE REFERENCE 30797-704.501
CURRENT APPLICATION NUMBER: US/11/105,708
CURRENT FILING DATE: 2005-04-13
PRIOR APPLICATION NUMBER: 09/478,977
PRIOR FILING DATE: 2000-01-06
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APPLICANT: PRESTA, LEONARD G.
APPLICANT: TEJADA, MAX L.
TITLE OF INVENTION: Humanized Anti-TGF-Beta Antibodies
FILE REFERENCE: P1954R1US
CURRENT APPLICATION NUMBER: US/11/096,046
CURRENT FILING DATE: 2005-03-31
PRIOR APPLICATION NUMBER: US 60/558,290
PRIOR PILING DATE: 2004-03-31
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TITLE OF INVENTION: Humanized Anti-TGF-Beta Antibodies
FILE REFERENCE: P1594R1US
CURRENT APPLICATION NUMBER: US/11/096,046
CURRENT FILING DATE: 2005-03-31
PRIOR APPLICATION NUMBER: US 60/558,290
PRIOR FILING DATE: 2004-03-31
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57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                Score 24; DB Pred. No. 73;
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Pred. No. 73;
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RESULT 11
US-11-021-305-31
; Sequence 31, Application US/11021305
; Publication No. US20050282733A1
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                           ; LENGTH: 17
TYPE: PRT
; ORGANISM: Staphylococcus aureus
US-11-136-559-27
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US-11-136-559-27
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CURRENT APPLICATION NUMBER: US/11/136,559
CURRENT APPLICATION NUMBER: US/11/136,559
CURRENT APPLICATION NUMBER: US/10/056,052
PRIOR APPLICATION NUMBER: US/10/056,052
PRIOR FILING DATE: 2001-07-30
PRIOR PHILOR DATE: 2001-07-30
PRIOR APPLICATION NUMBER: 60/298,413
PRIOR APPLICATION NUMBER: 60/298,413
PRIOR APPLICATION NUMBER: 60/274,611
PRIOR APPLICATION NUMBER: 60/274,611
PRIOR APPLICATION NUMBER: 60/274,611
PRIOR FILING DATE: 2001-01-12
PRIOR APPLICATION NUMBER: 60/264,072
PRIOR FILING DATE: 2001-01-26
NUMBER OF SEQ ID NOS: 29
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PRIOR APPLICATION NUMBER: 60/143,534
PRIOR PILING DATE: 1999-09-02
PRIOR PILING DATE: 1999-09-02
PRIOR APPLICATION NUMBER: 60/114,878
PRIOR FILING DATE: 1999-01-06
PRIOR FILING DATE: 1999-01-06
PRIOR FILING DATE: 1999-01-06
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin version 3.2
SEQ ID NO 23
LENGTH: 17
                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: P
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APPLICANT: PATTI, J
APPLICANT: HUTCHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 27, Application US/111 Publication No. US20050287164A1
                                                                                                                                                                                                                  Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: PATEL, Pratiksha
APPLICANT: HALL, Andrea
TITLE OF INVENTION: MONOCLONAL ANTIBODIES TO THE CLFA PROTEIN .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
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Local Similarity 57.1%;
                                                                                                                                      11 NOKNYLA 17
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DOMANSKI, Paul
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INS, Jeff T
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57.1%;
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Pred. No. 73;
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                                                                                                                                                                                                                Mismatches
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Query Match
Best Local Similarity
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US-11-041-893-201
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SEQ ID NO 31
LENGTH: 12
TYPE: PRT
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      APPLICATE King's College London
TITLE OF INVENTION: Diagnosis of Demyelinating or Spongiform Disease
TITLE OF INVENTION UNMER: US/10/494,781
CURRENT FILING DATE: 2004-05-06
PRIOR APPLICATION NUMBER: GB 0127000.8
PRIOR PILING DATE: 2001-11-09
PRIOR FILING DATE: 2002-02-04
NUMBER OF SEQ ID NOS: 28
PRIOR FILING DATE: 2002-02-04
NUMBER OF SEQ ID NOS: 28
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Best Local Similarity
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TITLE OF INVENTION: COMPOSITIONS COMPRISING IMMUNE RESPONSE
TITLE OF INVENTION: ALTERING AGENTS AND METHODS OF USE
FILE REFERENCE: 100123.401
CURRENT APPLICATION NUMBER: US/11/041,893
CURRENT FILING DATE: 2005-01-24
PRIOR APPLICATION NUMBER: US 60/616,855
PRIOR APPLICATION NUMBER: US 60/538,713
PRIOR PILING DATE: 2004-01-23
PRIOR FILING DATE: 2004-01-23
PRIOR FILING DATE: 2004-01-23
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APPLICANT: Hutley, Louise J
TITLE OF INVENTION: Differentiation-modulating agents and uses therefor
FILE REFERENCE: DAVI169.001CP1
CURRENT APPLICATION NUMBER: US/11/021,305
CURRENT FILING DATE: 2004-12-23
PRIOR APPLICATION NUMBER: USSN 60/392,130
PRIOR FILING DATE: 2002-06-27
PRIOR FILING DATE: 2002-06-27
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SOFTWARE: PatentIn version 3.1
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TYPE: PRT
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Pred. No. 1.4e+02;
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SEQ ID NO 6 LENGTH: 7

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APPLICANT: Crey, Howard M.

APPLICANT: Epimmune Inc.

TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency

TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions

FILE REFERENCE: 2060.0040007

CURRENT APPLICATION NUMBER: US/11/045,024

CURRENT FILING DATE: 2005-01-28

PRIOR APPLICATION NUMBER: US 09/412,863

PRIOR APPLICATION NUMBER: US 08/027,146

PRIOR APPLICATION NUMBER: US 08/027,146

PRIOR FILING DATE: 1993-03-05

PRIOR APPLICATION NUMBER: US 08/073,205

PRIOR APPLICATION NUMBER: US 08/103,396

PRIOR APPLICATION NUMBER: US 08/159,184

PRIOR APPLICATION NUMBER: US 08/159,184

PRIOR FILING DATE: 1993-01-05

PRIOR APPLICATION NUMBER: US 08/159,184

PRIOR FILING DATE: 1993-11-29

PRIOR APPLICATION NUMBER: US 08/159,39

PRIOR APPLICATION NUMBER: US 08/159,39

PRIOR APPLICATION NUMBER: US 08/159,39

PRIOR APPLICATION NUMBER: US 08/205,713

PRIOR APPLICATION NUMBER: US 08/205,713

PRIOR APPLICATION NUMBER: US 08/205,713

PRIOR APPLICATION NUMBER: US 08/347,610

PRIOR FILING DATE: 1994-01-04

PRIOR FILING DATE: 1994-01-04

PRIOR FILING DATE: 1994-01-06

PRIOR APPLICATION NUMBER: US 08/347,610
RESULT 15

US-11-045-024-3575

; Sequence 3575, Application US/11045024

; Publication No. US20050271676A1

; GENERAL INFORMATION:
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US-11-045-024-3529
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; TYPE: PRT
; ORGANISM: Bovine US-10-494-781-6
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SEQ ID NO 3529
LENGTH: 9
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Best Local
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Best Local Similarity
Matches 4; Conserv
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nes 5; Conserv
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Denise Marie
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100.0%; Pred. No. 5.8
Live 0; Mismatches
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Pred. No. 5.8e+04;
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o. 5.8e+04;
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3575
                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3576, Application US/11045024 Publication No. US20050271676A1
APPLICANT: Baker, Denise Marie
APPLICANT: Celis, Esteban
APPLICANT: Kubo, Ralph
APPLICANT: Kubo, Ralph
APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
TILE REFERENCE; 2060.0040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
BRIOR APPLICATION NUMBER: US 09/412,863
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1999-03-05
PRIOR FILING DATE: 1999-03-05
PRIOR FILING DATE: 1999-03-05
PRIOR FILING DATE: 1999-03-05
PRIOR FILING DATE: NUMBER: US 08/027,146
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APPLICANT:
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PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR FILING DATE: 1993-06-04
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TYPE: PRT
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CURRENT FILING DATE: 2005-01-28
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TITLE OF INVENTION: Inducing Cellular Responses to Human
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Ac
FILE REFERENCE: 2060.0040007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US 08/347,610 PRIOR FILING DATE: 1994-12-01
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FILLING DATE: 1993-08-06
APPLICATION NUMBER: US 08/159,184
FILING DATE: 1993-11-29
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Baker, Denise Marie
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Pred. No. 5.
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APPLICATION NUMBER: US 08/073,205

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RESULT 17
US-11-045-024-10581
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; TYPE: PRT
; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-3576
                                           US-11-045-024-10581
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PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3576
                                                                                                                        SOFTWARE: FASTSEQ for Windows Version 4.0 SEQ ID NO 10581
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Publication No. US20050271676A1
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  Query Match
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APPLICANT:
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PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
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PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,339
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TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0040007
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PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR FILING DATE: 1993-06-04
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PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
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CURRENT FILING DATE: 2005-01-28
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                                                                                                                                                                      NUMBER OF SEQ ID NOS: 14528
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                                                               ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
                                                                                     LENGTH: 9
TYPE: PRT
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APPLICATION NUMBER: US 08/159,184
FILING DATE: 1993-11-29
APPLICATION NUMBER: US 08/159,339
FILING DATE: 1993-11-29
FILING DATE: 1993-11-29
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APPLICATION NUMBER: US 08/103,396
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Similarity 62.5%;
5; Conservative
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  34.4%; Score 22;
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Pred. No. 5.8e+04;
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  7;
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Length 9;
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US-11-045-024-10720
US-11-045-024-10720
Sequence 10720, Application US/11045024
Publication No. US20050271676A1
GENERAL INFORMATION:
APPLICANT: Sette, Alessandro
APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
APPLICANT: Southwood, Scott
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TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1993-00-05
PRIOR FILING DATE: 1993-03-05
PRIOR FILING DATE: 1993-03-05
PRIOR FILING DATE: 1993-03-05
PRIOR FILING DATE: 1993-08-06
PRIOR FILING DATE: 1993-08-06
PRIOR FILING DATE: 1993-08-06
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
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Best Local Similarity
Matches 5; Conserve
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US-11-045-024-10652
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SEQ ID NO 10652
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Publication No. US20050271676A1
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Matches 5; Conserv
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PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/205,713
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PRIOR APPLICATION NUMBER: US 08/347,610
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APPLICANT:
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                                                                                                                                                                                                                                                                                  2 LELLEELK 9
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Baker,
Celis,
                                 Livingston, Bria
Chesnut, Robert
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Celis, Esteban
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Denise Marie
Esteban
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Pred. No. 5.8e+04;
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Sequence 12381, Application US/11045024
Publication No. US20050271676A1
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                                      TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions FILE REFERENCE: 2060.0040007

CURRENT APPLICATION NUMBER: US/11/045,024

CURRENT FILING DATE: 2005-01-28

PRIOR APPLICATION NUMBER: US 09/412,863

PRIOR FILING DATE: 1999-10-05

PRIOR PILING DATE: 1999-10-05

PRIOR PILING DATE: 1993-03-05

PRIOR APPLICATION NUMBER: US 08/027,146

PRIOR APPLICATION NUMBER: US 08/03,205

PRIOR APPLICATION NUMBER: US 08/03,306

PRIOR APPLICATION NUMBER: US 08/03,306

PRIOR APPLICATION NUMBER: US 08/13,396

PRIOR APPLICATION NUMBER: US 08/13,396

PRIOR APPLICATION NUMBER: US 08/13,396
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SOFTWARE: FastSEQ for Windows Version 4.0
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CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
PRIOR FILING DATE: 1993-03-05
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PRIOR APPLICATION NUMBER: US 08/159,339
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PRIOR FILING DATE: 1993-06-04
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR FILING DATE: 1993-08-06
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                        APPLICATION NUMBER: US 08/159,184
FILING DATE: 1993-11-29
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Pred. No. 5.
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                                 Matches
                                                 Query Match
Best Local 9
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SOFTWARE: FastSEQ for Windows
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PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: FastSEQ for Windows Version 4.0
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PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
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CURRENT FILING DATE: 2005-01-28
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TYPE: PRT
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FILING DATE: 1993-08-06
APPLICATION NUMBER: US 08/159,184
FILING DATE: 1993-11-29
APPLICATION NUMBER: US 08/159,339
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APPLICATION NUMBER: US 08/205,713
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Similarity 55.6%;
5; Conservation
                                                   Similarity
                                 5.
LALVRELK 13
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Chesnut, Robert
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                                 Conservative
                                                                                                                     IMMUNODEFICIENCY VIRUS
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                                                 34.4%;
62.5%;
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                               Score 22; DB 7;
Pred. No. 5.8e+04;
1; Mismatches 2
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Pred. No. 5.8e+04;
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RESULT 23
US-11-045-024-13980
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PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR PILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
                                                                                                                                                                             APPLICANT: Sette, Alessandro
APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
APPLICANT: Livingston, Brian
APPLICANT: Chesmut, Robert
APPLICANT: Baker, Denise Mari
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Publication No. US20050271676A1
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Best Local Similarity 62.5%;
Matches 5; Conservative
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              APPLICANT: Kubo, Ralph
APPLICANT: Grey, Howard M.
APPLICANT: Epimmune Inc.
APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0040007
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CURRENT APPLICATION NUMBER: US/11/045,024
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Baker, Denise Marie
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Baker, Denise Marie
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; Pred. No. 5.8e
1; Mismatches
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5.8e+04;
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APPLICANT: Epimmune Inc.
TITILE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
TITILE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0040007
CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR PILING DATE: 1993-06-04
PRIOR PILING DATE: 1993-06-06
PRIOR PILING DATE: 1993-06-06
PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3581
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US-11-045-024-3581
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PRIOR FILING DATE: 1993-06-04
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR FILING DATE: 1993-08-06
PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR FILING DATE: 1994-03-04
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PRIOR FILING DATE: 1994-12-01
NUMBER OF SEO ID NOS: 14528
SOFTWARE: FastSEQ for Windows Version 4.0
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PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
PRIOR FILING DATE: 1993-03-05
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Local Similarity 55.6%;
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Celis, Esteban
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                                for Windows Version 4.0
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Pred. No. 5.8e+04;
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CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
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PRIOR PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
PRIOR PILING DATE: 1993-06-04
PRIOR PILING DATE: 1993-06-04
PRIOR APPLICATION NUMBER: US 08/03,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR FILING DATE: 1993-10-06
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR PILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR PILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
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; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3582
; LENGTH: 10
; TYPE: PRT
; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-3582
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US-11-045-024-3581
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US-11-045-024-3582
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APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
APPLICANT: Livingston, Brian
APPLICANT: Chesnut, Robert
APPLICANT: Baker, Denise Mari
                                                                                                                                                                                                              Query Match 34.4%; Score 22; DB 7; Length 10; Best Local Similarity 62.5%; Pred. No. 94; Matches 5; Conservative 1; Mismatches 2; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions FILE REFERENCE: 2060.0040007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PPLICANT:
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Southwood, Scott
Livingston, Brian
Chesnut, Robert
Baker, Denise Marie
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isocitrate lyase (EC 4.1.3.1) - Acinetobacter calcoaceticus (rragment, C;Species: Acinetobacter calcoaceticus C;Species: Acinetobacter calcoaceticus C;Date: 28-May-1992 #sequence_revision 28-May-1992 #text_change 09-Jul-2004 C;Accession: A41338 R;Hoyt, J.C.; Johnson, K.E.; Reeves, H.C. J. Bacteriol. 173, 6844-6848, 1991 A;Title: Purification and characterization of Acinetobacter calcoaceticus i A;Reference number: A41338; MUID:92041568; PMID:1938889
                                                                                                           R;Nyitray, L.; Mocz, G.; Szilagyi, L.; Balint, M.; Lu, R.(J. Biol. Chem. 258, 13213-13220, 1983
A;Title: The proteolytic substructure of light meromyosin. A;Reference number: A92403; MUID:84032553; PMID:6355107
A;Accession: A20923
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N;Alternate names: chlorocruorin
C;Species: Eudistylia vancouveri
A;Cross-references: UNIPROT:Q8JG72; UNIPARC:UPI00001775EC C;Superfamily: myosin motor domain homology C;Keywords: ATP; muscle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Qabar, A.N.; Stern, M.S.; Walz, D.A.; Chiu, J.T.; Timkovich, R.; Wall, J.S.; Kapp, J. Mol. Biol. 222, 1109-1129, 1991
A;Title: Hierarchy of globin complexes. The quaternary structure of the extracellula: A;Reference number: S19532; MUID:92106333; PMID:1762147
A;Accession: S19615
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A;Experimental source: plume
C;Complex: dodecamers, each consisting of a trimer of tetramers of globin chains; dodecamer: neme; homotetramer; oxygen carrier
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                                                                       A; Molecule type: protein A; Residues: 1-18 < NYI>
                                                                                                                                                                                                                                                                 light meromyosin - chicken (fragment)
C;Species: Gallus gallus (chicken)
C;Sate: 05-Jun-1987 #sequence_revision 05-Jun-1987 #text_change 31-Dec-2004
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A;Residues: 1-20 <QAB>
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C;Keywords: ]
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A; Reference number: S35970
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                            hydroxypyruvate reductase (EC 1.1.1.81) - Methylobacterium extorquens (fragment) C;Species: Methylobacterium extorquens C;Species: Methylobacterium extorquens C;Date: 01-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 08-Oct-1999 C;Accession: A44921
                                                                                                                                                                                                                                                                                      A;Gene: rplJ
C;Superfamily: Escherichia coli ribosomal protein L10
C;Keywords: protein biosynthesis; ribosome
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A; Residues: 1-21 <ZHY>
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A; Residues: 1-20 <ZHY>
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C;Species: Citrobacter freundii
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A;Cross-references: UNIPROT:Q7M532; UNIPARC:UPI000017AEA3
R;Engemann, S.; Noelle, R.; Herturth, E.; Briesemeister, U.; Grelle
Eur. J. Blochem. 234, 24-31, 1995
A;Title: Cartography of tibosomal proteins of the 30S subunit from
A;Reference number: S63964; MUID:96096717; PMID:8529646
                                                     A;Molecule type: protein
A;Residues: 1-18 <ENW>
A;Cross-references: UNIPARC:UPI000017AEA3
C;Keywords: blocked amino end; protein biosynthesis; ribosome
                                                                                                                                                                                                                                                                                                                             R;Engemann, S.; Herfurth, E.; Briesemeister, U.; Grelle, G.; Wittmann-Liebold, submitted to the Potein Sequence Database, November 1994
A;Bescription: Cartography of ribosomal proteins of the 30S subunit from the harmaneric number; S49023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Molecule type: protein
A;Residues: 1-14 <KAM>
A;Cross-references: UNIPARC:UPI000017B010
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary
A;Molecule type: DNA
                                                                                                                                             A;Reference number: S63964;
A;Accession: S63967
                                                                                                                                                                                                                                                                                                                                                                                                                             ribosomal protein HS25 [validated] - Haloarcula marismortui (fragment)
C;Species: Haloarcula marismortui
C;Datc: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
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A;Accession: PA0015
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A;Residues: 1-18 <ENG>
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Matches 4
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;Species: Arabidopsis thaliana (mouse-ear cress)
;Date: 30-Jun-1992 #sequence_revision 06-Jan-1995 #text_change 11-Jul-1997
;Accession: PA0015
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Query Match
Best Local Similarity
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32.8%;
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Score
Pred.
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Pred. No. 1.3e+03;
3; Mismatches 4
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Pred. No. 1.2e+03;
3; Mismatches 3
NO.
DB 2;
2.5e+03;
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                                                         R; Uezono, Y.; Tsumo
submitted to JIPID,
                                                                                              dextransucrase (EC 2.4.1.5) Streptococcus bovis (fragment) C;Species: Streptococcus bovis (C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_chac;Accession: PU0034
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                   A:Reference number:
                                        A; Description: Purification and
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A; Residues: 1-20 < MAR>
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                                                                               Tsumori, H.; Mukasa,
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                       PU0034
                                                         October 1993
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A;Description: antibacterial protein A;Note: active against Gram-negative i C;Keywords: antibacterial; hemolymph;
                                                                                                                                                                                                                     Biochem. J. 300, 567-575, 1994
A;Title: Novel inducible antibacterial peptides from a hemipteran insect, the A;Reference number: $44463; MUID:94271176; PMID:8002963
A;Accession: $44465
                                                                                                                                                                                                                                                                                                                                                            pyrrhocoricin - Pyrrhocoris apterus
C;Species: Pyrrhocoris apterus
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:Q97PE0; UNIPROT:Q8DNU1; UNIPARC:UPI000017AC6F; EMBL:Z49988 A;Note: the nucleotide sequence was submitted to the EMBL Data Library, June 1995 C;Superfamily: cephalosporin-C deacetylase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mol. Microbiol. 19, 1035-1045, 1996
A;Title: The mmsA locus of Streptococcus pneumoniae encodes a RecG-like protein A;Reference number: S71015; MUID:96249697; PMID:8830261
A;Accession: S71017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein - Streptococcus pneumoniae (fragment)
C;Species: Streptococcus pneumoniae
C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 31-Dec-2004
C;Accession: S71017
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                                                                                                                                                                         A;Cross-references: UNIPROT:P37362; UNIPARC:UPI0000132E13
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Pred. No. 2.7e+03
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Pred. No. 2.7e+03;
2; Mismatches 1
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glucosyltransferase

synthesizing 1,6-alph

#text_change

09-Jul-2004

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RESULT 14
A35550
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A;Residues: 1-11 <UEZ>
A;Cross-references: UNIPROT:Q7M102; UNIPARC:UPI000017CA7D
A;Experimental source: ATCC 9809
                                                                                                                                                                                                                                                                        A;Molecule type: protein
A;Residues: 1-17 <BLO>
A;Cross-references: UNIPROT:P14460; UNIPARC:UPI000012A764
A;Cross-references: UNIPROT:P14460; UNIPARC:UPI000012A764
R;Blombaeck, B.; Blombaeck, M.; Groendahl, N.J.
Acta Chem. Scand. 19, 1789-1791, 1965
A;Title: Studies on fibrinopeptides from mammals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                myosin heavy chain - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: I55226
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R;Blombaeck, B.; Blombaeck, M.; Hann,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Sus scrofa domestica (domestic pig)
C;Date: 21-Nov-1987 #sequence_revision 21-Nov-1987 #text_change 09-Jul-2004
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fibrinopeptide A -
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A;Reference number: I55226; MUID:84061805; PMID:619635
A;Accession: I55226
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J. Biol. Chem. 258, 13867-13874, 1983
A;Title: Sequential accumulation of mRNAs encoding different myosin heavy cha:
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A; Residues: 1-17 < RES>
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Best Local
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3; Conserv
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Similarity 36.4%;
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57.1%;
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by Blombaeck,
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Pred. No. 2.3e+03;
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Pred. No.
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Pred. No. 3.5e+03;
1; Mismatches :
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3.5e+03;
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R;Shigeoka, S.; Nakano, Y.
Arch. Biochem. Biophys. 288, 22-28, 1991
A;Title: Characterization and molecular properties of 2-oxoglutarate
A;Reference number: A61150; MUID:91378443; PMID:1910306
A;Accession: A61150
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B53875
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R;Shi, D.L.; Savona, C.; Gagnon, J.; Cochet, C.; Chambaz, E.M.; Feige, J.J.
J. Biol. Chem. 265, 2881-2887, 1990
A;Title: Transforming growth factor-beta stimulates the expression of alpha-2-macroglobu A;Reference number: A35550; MUID:90153919; PMID:1689294
A;Accession: A35550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: UNIPROT:Q9PSI4; UNIPARC:UPI00000FBF09
A;Experimental source: Brockmann body, principal islet
A;Note: sequence extracted from NCBI backbone (NCBIP:120600)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      adrenocortical cell major secreted protein - bovine (fragment)
C;Species: Bos primigenius taurus (cattle)
C;Date: 21-Sep-1990 #sequence_revision 21-Sep-1990 #text_change
                                                                                                                                                                                                                                                                                                     2-oxoglutarate decarboxylase (EC 4.1.1.71) - Euglena gracilis (fragment)
C;Species: Euglena gracilis
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 09-Jul-2004
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A61150
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C;Keywords:
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A;Tille: The principal islet of the Coho salmon (Oncorhyncus A;Reference number: A53875; MUID:93080727; PMID:1449598
A;Accession: B53875
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A;Molecule type: protein
A;Residues: 1-17 <SHI>
                                                                                          A;Cross-references: UNIPROT:Q7M266; UNIPARC:UPI000017AED8
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C; Species: Oncorhynchus kisutch (coho salmon)
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A;Residues: 1-20 <SHI>
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                                                                                                                                                                                                                                                                                        Accession: A61150
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    Matches
                           Query Match
Best Local
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Score 20; DB 2; DP Pred. No. 4.1e+03; Mismatches 2;
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Pred. No. 3.5e+03;
1; Mismatches 5
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Pred. No. 4.1e+03;
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glucocerebrosidase - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 02-Jul-1996 #sequence_revisio
C;Accession: I52980; I65971
                                                                               RESULT 19
I52980
                                                                                                                                                                                                                                                                                                  es of damage
C;Superfamily: glutathione transferase
C;Keywords: dimer; transferase
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N;Alternate names: glutathione S-transferase class alpha 5
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 19-Mar-1998 #sequence_revision 17-Apr-1998 #text_change 07-May-1999
C;Accession: S71867
R;Rouini, P; Anglade, P; Debrauwer, L.; Tulliez, J.
Biochem. J. 317, 879-884, 1996
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C;Comment: At least five speciés-independent classes of cytosolic glutathion
s mitochondrial form are known.
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A;Title: A new Tetrahymena actin-binding protein is localized A;Title: A new Tetrahymena actin-binding protein is localized A;Reference number: PD0015; MUID:98207047; PMID:9538250
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C;Species: Tetrahymena pyriformis
C;Bate: 13-Jun-1998 #sequence_revision 10-Jul-1998 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Molecule type: protein
A;Residues: 1-21 <WAT>
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Best Local
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    #sequence_revision: 165971
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A;Cross-references: UNIPARC:UPI00001427C8
A;Experimental source: style, strain Mill
R;Anderson, M.A.; Cornish, E.C.; Mau, S.L.; William
, J.P.; Crawford, R.J.; Clarke, A.E.
Nature 321, 38-44, 1986
A;Title: Cloning of CDNA for a stylar glycoprotein
A;Reference number: A28819
A;Accession: A28819
                                                                                                                                                                                                                                                                          stylar glycoprotein 3 - Peruvian tomato (fragment)
N;Alternate names: S3-glycoprotein
C;Species: Lycopersicon peruvianum (Peruvian tomato)
C;Date: 23-Nov-1991 #sequence_revision 23-Nov-1991 #
C;Accession: PQ019; A28819
R;Mau, S.L; Williams, E.G.; Atkinson, A.; Anderson,
Planta 169, 184-191, 1986
                                                                                                                                                                      A; Molecule type: protein A; Residues: 1-15 < MAU>
                                                                                                                                                                                                                                  A; Title: Style proteins of A; Reference number: PQ0192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEBS Lett. 317, 53-56, 1993
A;Title: Association of three small GTP-binding proteins with A;Reference number: S29485; MUID:93154521; PMID:8428634
A;Accession: S29486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTP-binding protein o-rab3 . C; Species: Discopyge ommata
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DNA 7, 107-116,
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A; Residues: 1-11 <RE2>
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42.9%;
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80.0%;
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    electric ray (Discopyge

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Pred. No. 4.4e+03;
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Pred. No. 3.5e+03
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RESULT 24
PH1778
T cell receptor alpha chain V region (clone 1PBL V alpha 24-5) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 16-Jul-1999
C;Accession: PH1778
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A;Cross-references: UNIPARC:UPI00001427C8
C;Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Accession: S10809

R;Toker, A.; Ellis, C.A.; Sellers, L.A.; Aitken, A.

Bur. J. Biochem. 191, 421-429, 1990

A;Title: Protein kinase C inhibitor proteins. Purification from sheep brain and sequence A;Reference number: S10804; MUID:90345949; PMID:2143472

A;Accession: S10809
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N;Alternate names: probable lipocortin
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 19-Mar-1997 #sequence_revision 13-Sep-1998 #text_change 13-Sep-1998
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J. Exp. Med. 174, 1371-1383, 1991
A;Title: T cell receptor genes in a series of class I major histocompatibility complex-allelic exclusion and antigen-specific repertoire.
A;Reference number: PH0746; MUID:92078846; PMID:1836010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PH0784
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A;Residues: 1-16 <TOK>
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A; Residues: 1-15 < CAS>
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Similarity 50.0%;
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Pred. No. 4.7e+03;
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Pred. No. 4.7e+03;
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Pred. No. 5e+03;
0; Mismatches
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Search completed: January 26, Job time: 9.5 secs

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RESULT 25
PH1781
T cell receptor alpha chain V region (clone 2DN V alpha 24-2) - :
C;Species: Homo sapiens (man)
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change
C;Accession: PH1781
C;Accession: PH781
                                                                                                                                               A;Molecule type: mRNA
A;Residues: 1-16 <POR>
A;Cross-references: UNIPARC:UPI000017C374
                                                                                                                                                                                                                                                                           R;Porcelli, S.; Yockey, C.E.; Brenner, M.B.; Balk, S.P. J. Exp. Med. 178, 1-16, 1993
A;Title: Analysis of T cell antigen receptor (TCR) expression
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J. Exp. Med. 178, 1-16, 1993
A;Title: Analysis of T cell antigen receptor (TCR) expression by human peripheral blood
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A;Cross-references: UNIPARC:UPI000017C36C
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A;Status: preliminary
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A; Residues: 1-16 < POR>
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Pred. No. 5e+03;
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Pred. No. 5e+03;
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Gene 127:71-78(193).
GO; GO:0009522; C:photosystem I; IEA.
GO; GO:0015979; P:photosynthesis; IEA.
InterPro; IPR010010; PBaM.
Pfam; PF07465; PBaM; 1.
SEQUENCE 20 AA; 2102 MW; DF585D9ED9D7C512 CRC64;
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MEDLINE=9325282; PubMed=8486290; DOI=10.1016/0378-1119(93)90618-D;

Muehlenhoff U., Haehnel W., Witt H.T., Herrmann R.G.;
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01-MAY-2000 (TrEMBLrel. 13, Last sequ)
01-MAR-2004 (TrEMBLrel. 26, Last anno)
Photosystem I subunit XII (Fragment).
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MEDLINE=91372967; PubMed=1680106;
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1; Mismatches
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Pred. No. 1.3e
2; Mismatches
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Best Local Similarity
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01-DEC-1992 (Rel.
05-JUL-2004 (Rel.
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muridae; Murinae; Mus.
                                                                                                                                                                                                                    J. Bacteriol. 173:6844-6848(1991).

-!- CATALYTIC ACTIVITY: Isocitrate = succinate + glyoxyl-
-!- PATHWAY: Glyoxylate bypass; first step.
-!- SUBUNIT: Homotetramer (By similarity).
-!- SUBCELLULAR LOCATION: Cytoplasmic.
-!- SIMILARITY: Belongs to the isocitrate lyase family.
                                                                                                                                                                                                                                                                                                                                                  PROTEIN SEQUENCE.
MEDLINE=92041568; PubMed=1938889;
Hoyt J.C., Johnson K.E., Reeves H
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Alternatively Spliced Isoforms
Blastocyst MHC.";
                            InterPro, IPR000918, Isocit lyase ph. PROSITE; PS00161; ISOCITRATE LYASE; PARTIAL. Direct protein sequencing; Glyoxylate bypass; Tricarboxylic acid cycle.
                                                                                                                                        This Swiss-Prot entry is copyright. It is produced through the swiss Institute of Bioinformatics and the the European Bioinformatics Institute. There are no resuse as long as its content is in no way modified and this
                                                                                                                                                                                                                                                                                                                                                                                                                                       Acinetobacter calcoaceticus.
Acinetobacter calcoaceticus.
Racteria, Proteobacteria, Gammaproteobacteria,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P28467;
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SEQUENCE
                Tricarboxylic acid
                                                                                            PIR; A41338; A41338.
                                                                                                                                                                                                                                                                                                                                                                                                                               Bacteria; Proteobacteria; Gan
Moraxellaceae; Acinetobacter:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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ΑA;
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(EC 4.1.3.1) (Isocitrase) (I
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-; Genomic_DNA.
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 83AE726B1F2F96E3 CRC64;
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ion of Acinetobacter
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EUDVA
07M3Q5_EUDVA PRELIMINARY;
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05-JUL-2004 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
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                                                                                                                                                                                                            "Spontaneous deletion mutants of the Lactococcus lactis bacteriophage BK5-T and localization of the BK5-T attp gAppl. Environ. Microbiol. 61:4105-4109(1995).
EMBL: S80308; AAB35788.2; -; Genomic_DNA.
                                                                                                                                                                                                                                                                                      MEDLINE=96064424; PubMed=8526525;
Boyce J.D., Davidson B.E., Hillier A.J.;
                                                                                                                                                                                                                                                                                                                                                                              Lactococcus phage BK5-T.
Viruses; dsDNA viruses,
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Q76UT2;
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Kapp O.H., Vinogradov S.N.;
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MEDLINE=92106333;
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01-MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                              SEQUENCE
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Sabellidae; Eudistylia.
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M.S., Walz D.A.,
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01-MAR-2001
01-JUN-2003
       NUCLEOTIDE SEQUENCE.
STRAIN=Z-G T95-873;
MEDLINE=99175282; PubMed=10074533;
Crawford-Miksza L.K., Nang R.N., Strain variation in adenovirus se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=97448947; PubMed=9303271; DOI=10.1016/S0145-305X(97)00012-8; Wittwer D., Weise C., Goetz P., Wiesner A.; "LPS (lipopolysaccharide)-activated immune responses in a hemocyte cell line from Estigmene acraea (Lepidoptera)."; Dev. Comp. Immunol. 21:323-336(1997)

-i- FUNCTION: Lysozymes have primarily a bacteriolytic function; those in tissues and body fluids are associated with the monocytemacrophage system and enhance the activity of immunoagents (By
                                                                                                                                       Human adenovirus 4 (HAdV-4)
Viruses; dsDNA viruses, no
                                                                                                                                                                                        P23 protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR001916; Glyco_hydro_22.
pr05ITE; ps00128; LACTALBUMIN_LY50ZYME; PARTIAL.
Antimicrobial; Bacteriolytic enzyme; Direct protein sequencing;
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16-OCT-2001
13-SEP-2005
                                                                                                                    NCBI_TaxID=28280;
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Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta;
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European
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(Rel. 48, Last annotation update)
3.2.1.17) (1,4-beta-N-acetylmuramidase)
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Q4XBH7_PLACH PRELIMINARY;
Q4XBH7_13-SEP-2005 (TrEMBLrel. 31)
13-SEP-2005 (TrEMBLrel. 31)
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Submitted (DEC-2000) to the
SMBL; AF065064; AAD03661.3;
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STRAIN=Z-G T95-873;
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P43448;
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhyvoloup A.N.;
Submitted (AUG-1993) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: Belongs to the ribosomal protein L10P family.
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S01109; RIBOSOMAL_L10; PART
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8 AA;
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P51411;
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13-SEP-2005
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Berriman M.; Florens L., Janssen C.S., Pain A., Christophides G.K.
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,
Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kafatos F.
Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.;
"A comprehensive survey of the Plasmodium life cycle by genomic,
                                                                                                                                   INIT MET
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SEQUENCE
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Eukaryota; Alveolata;
NCBI_TaxID=5825;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhyvoloup A.N.;
Submitted (AUG-1993) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: Belongs to the ribosomal protein L10p family.
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InterPro; IPR002363; Ribosomal_L10eub.
PROSITE; PS01109; RIBOSOMAL_L10; PARTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
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Enterobacteriaceae; Proteus.
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                                                                                                                                                                                                                                             Ribonucleoprotein; Ribosomal
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                                                                              "Identification of Salmonella enterica serovar Typhimurium genes associated with growth suppression in stationary-phase nutrient broth cultures and in the chicken intestine.";

Arch. Microbiol. 178:411-420(2002).

EMBL, APZ68390; AAF73476.1; -; Genomic DNA.

GO; GO:0016021; C:integral to membrane; IEA.

GO; GO:0019867; C:outer membrane; IEA.

GO; GO:0015288; F:porin activity; IEA.
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-i- CAUTION: The sequence shown here is derived from an EMBL/Genbank/DDBJ whole genome shotgun (WGS) entry which is nortificaty dars
                                                                                                                                                                                                                                                                           NUCLECTIDE SEQUENCE.
MEDLINE=22306558; PubMed=12420160; DO
Rychlik I., Martin G., Methner U., Lo
Sevcik M., Damborsky J., Barrow P.A.;
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                                                                                                                                                                                                                                                                                                 PubMed=12420160; DOI=10.1007/800203-002-0458-7; n.G., Methner U., Lovell M., Cardova L., Sebkova
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                                                                      Apfel R., Lottspeich F., Hoppe J "Purification and analysis of grohuman melanoma cell line.";
Melanoma Res. 2:327-336(1992).
HSSP; P07107; 1HB6.
SEQUENCE 16 AA; 1924 MW; 9E11
                                                                                                                                                                                                                                           09UCI8;
                                                                                                                  PROTEIN SEQUENCE.
MEDLINE=93184488; PubMed=1292782;
MEDLINE=93184488; PubMed=1292782;
                                                                                                                                                                                                                                                                                                                                                                                        Williams K.P.;
Williams K.P.;
"Phylogenetic analysis of tmRNA.";
Submitted (JAN-2005) to the EMBL/GenBank/DDBJ
Submitted (JAN-2005) to Genomic_DNA.
                                                                                                                                                                                     Eukaryota;
                                                                                                                                                                                                       Endozepine (Fragment).
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NON TER 1 1
SEQUENCE 9 AA; 935 MW; 4D46
                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                             Mammalia;
                                                                                                                                                                                               Homo sapiens
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Bacteria; Firmicutes; Bacillales; Bacillaceae; Geobacillus
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Pred. No. 5.1e+03
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Best Local :
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Q9ZXI2;
01-MAY-1999 (
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QBWGC4;
01-MAR-2002 (TrEMBLrel. 2
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                                                                                      Submitted (SEP-1997) to the EMBL/GenBank/DDBJ da EMBL; AF022930; AAD01753.1; -; Genomic DNA. GO; GO:0008233; F:peptidase activity; IEA. GO; GO:0006508; P:proteolysis and peptidolysis; InterPro; IPR005082; Peptidase_U9.
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T4-like viruses.
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Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Anomura; Paguroidea;
Paguridae; Discorsopagurus.
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01-JUN-2003
                                         Protease
                                                                   Pfam; PF03420; Peptidase_U9;
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Proc. R. Soc. Lond., B, Biol.
EMBL; AF436055; AAL31626.1; -
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0157:H7 and disclosure
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Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF065063; AAD03658.3; -; Genomic_DNA.
GO; GO:00004197; F:cysteine-type endopeptidase activity; IEA.
GO; GO:0008233; F:peptidase activity; IEA.
GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
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Crawford-Miksza L.K., Nang R.N., Schnurr I
"Strain variation in adenovirus serotypes
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Viruses; dsDNA viruses, no
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ProDom; PD003705; Peptidase_C5; 1.
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J. Clin. Microbiol. 37
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Crawford_Miksza L.K.;

Crawford_Miksza L.K.;

Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.

Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.

EMBL; AF065062; AAD03655.2; -; Genomic_DNA.

GO; GO:0006197; F:cysteine-type endopeptidase activity;

GO; GO:0006233; F:peptidase activity; IEA.

GO; GO:0006508; F:proteolysis and peptidolysis; IEA.

InterPro; IPR000855; Peptidase_C5.

ProDom; PD003705; Peptidase_C5; 1.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homin
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J. Clin. Microbiol. 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequencing and primary structure analysis of a genometanking the 3' terminus of human tissue plasminogen dol. Biol. (Mosk.) 29:161-165(1995).
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Q4XIZ2;
13-SEP-2005 (13-SEP-2005 (14)
                                                  Hypothetical protein (Fragment)
ORFNames=PC400809,00.0;
Plasmodium chabaudi.
Eukaryota; Alveolata; Apicomole
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NON_TER
SEQUENCE
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Engrailed (Fragment).
Lithobius forficatus.
Enkaryota; Metazoa; Arthropoda; Myriapoda; Chilopoda;
Pleurostigmophora; Lithobiomorpha; Lithobiidae; Lithobiomorpha; Lithobiidae; Lithologoda; NCBI_TaxID=7552;
                                    Eukaryota; Alveolata; Apicomplexa;
NCBI_TaxID=5825;
NUCLEOTIDE SEQUENCE Hall N., Karras M.,
                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=21272202, PubMed=11378385; I
Cook C.E., Smith M.L., Telford M.J.,
"Hox genes and the phylogeny of the
Curr. Biol. 11:759-763(2001).
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Eukaryota; Metazoa; Arthropoda;
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Scutigerella immaculata (gar
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EMBL; AF362097; AAK51952.1; -; Genomic_DNA.
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(TrEMBLrel. 31, Last sequence update)
(TrEMBLrel. 31, Last annotation update)
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(TrEMBLrel. 16, Last sequence up
(TrEMBLrel. 19, Last annotation
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                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=11378385; DOI=10.1016/S0960-9822(01)00222-6; PubMed=11378385; DOI=10.1016/S0960-9822(01)00222-6; PubMed=110 A., Akam M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PubMed=11378385; DOI=10.1016/S0960-9822(01)00222-6; M.L., Telford M.J., Bastianello A., Akam M.;
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Pred. No. 7e+03;
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RESULT 25
OBWGC5 9EUCA
OBWGC5 9EUCA
ID QBWGC5;
AC Q8WGC5;
DT Q1-MAR-2002 (TrEMBLrel. 20, Created)
DT 01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE NADH dehydrogenase subunit 1 (Fragment).
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                                                                                                                                                                                                                                                                                                                                                                                                                    Hall N., Karras M., Raine J.D., Carlton J.M., Kooij T.W.A.,
Berriman M., Florens L., Janssen C.S., Pain A., Christophides G.K.,
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,
Bidwell S.L., Rajandream M.A., Carucci D.J., Yates J.R., Kafatos F.C.,
Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.;
"A comprehensive survey of the Plasmodium life cycle by genomic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Hypothetical protein (Fragment).
ORFNames#PC106647.00.0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Plasmodium chabaudi.
Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
NCBI_TaxID=5825;
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Q4XT43;
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Science 307:82-86(2005).
-I- CAUTION: The sequence shown here is derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE. Hall N., Karras M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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                                                                                                                                                                                                                                                                                                                           EMBL/GenBank/DDBJ whole genome preliminary data. 

L; CAAJ01003378; CAH79919.1; -;
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EMBL; AF436053; AAL31625.1; -; Ge
GO; GO:0005739; C:mitochondrion;
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MEDLINE=21884466; PubMed=11886621;
Morrison C.L., Harvey A.W., Lavery
                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca; Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Anomura; Hippoidea; Albuneidae; Blepharipoda.
                                                                                                                                                                                   Morrison C.L., H
Cunningham C.W.;
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S., Tieu K., Huang Y.,
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Search completed: January 26, 2006, 08:03:51 Job time: 41.6638 secs

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ADR23798

AAR43009

AAR43009

AAR43009

AAR91858

ADN91858

ADN42145

ADH15133

ADH15660

ADY77534

ADY77534

AAY31984

AAY31984

AAY31984

AAY31984

AAY43855

ABJ47304

ABJ443855

ABJ47304

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ADM115134
ADH15134
ADH1561
ABK01731
ABK01766
ADZ86149
ADW75953
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                                                                                                                                                                                                                                                                        The present invention relates to novel human cancer-related genes and proteins (ABZ78120-ABZ78168 and 1897-ABR01861). The genes and proteins are useful for eliciting a humoral or cellular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                     Claim 13; Page 476; 1021pp; English.
                                                                                                                                                                                                                                                                                                                                                                                         New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response
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Morrison K, Morrison
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10-APR-2001; 2001US-0283112P
25-APR-2001; 2001US-0286630P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response:
                                                                                                                                                                                                                                                                                 Sequence 15
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10-APR-2001; 2001US-0283112P
25-APR-2001; 2001US-0286630P
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                                  HLA binding epitope #5247.
                                                            10-MAR-2005
                                                                                                               ADW34497
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer patients.
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Morrison K, 1
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                                                                                                                                                                                                                                          Score 37;
Pred. No.
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Virucide; cytostatic; gene therapy; vaccine; epitope; cytotoxic T cell; MHC class I; CTL; HTL; A2-restricted cytotoxic lymphocyte; HLA;

viral disease; cancer.

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RESULT 4
ADM35730
ID ADM35730
AC ADM3
XX ADM7
AC ADM7
XX IO-P
VX HLA
XX Viru
KW Viru
KW MHC
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                                                                                                                                                                              Virucide; cytostatic; gene therapy; vaccine; epitope; cytotoxic T cell; MHC class I; CTL; HTL; A2-restricted cytotoxic lymphocyte; HLA; viral disease; cancer.
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      15-MAY-2003
                                                                                                                         Unidentified
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                                                              WO2003040165-A2
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20-APR-2001;
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ilarity 56.2%;
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2001US-0285624P.
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Pred. No. 2e+(
1; Mismatches
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2e+02;
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01-JUL-2002
08-OCT-1990
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                                               11-JUL-1986;
10-JUL-1987;
                                                                                                                                                                                                                                      EP253325-A.
                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                  oncogene related peptide; hst-related
(YANA/) YANAIHARA N.
                                                                                                                              10-JUL-1987;
                                                                                                                                                                                       20-JAN-1988
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to a composition comprising at least one peptide having an isolated, prepared epitope selected from any of the sequences from 30 lists given in the specification. Also disclosed is a method foi inducing a cytotoxic T cell response against a pre-selected antigen in a conduction of the conduction of the conduction of the conduction of the conduction of the composition of the conduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 52-379; 382pp; English.
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20-APR-2001;
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87JP-00173671.
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56.2%;
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Pred. No. 2e+02;
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RESULT 6
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10-APR-2001;
25-APR-2001;
The present invention relates to novel human cancer-related genes and proteins (ABZ78120-ABZ78186 and ABR01789-ABR01861). The genes and proteins are useful for eliciting a humoral or cellular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the diagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, an
                                                                                                                                                                                     WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Prepd by solid phase or soln. methods. One of 2 among 23 claimed oncogene-related peptides. See AAP81119-P81134. (Updated on 01-JUL-2002 to add
                                                                                                       Claim
                                                                                                                                     New composition comprising a substance that modulates the structure proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune respons
                                                                                                                                                                                                         Jakobovits
Morrison K,
                                                                                                                                                                                                                                                                                                                                    24-OCT-2002
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                                                                                                                                                                                                                                                                                                                                                                                                      leukocyte
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; 2001US-0283112P.
; 2001US-0286630P.
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                                                                                                                                                                                                           Morrison
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                                                                                                     475; 1021pp;
                                                                                                                                                                                                                     Challita-Eid PM,
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                                                                                                                                                                                                                                                                                                                                                                                                                 cancer; immune response; HLA;
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                                                                                                       English
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also AAP81114-7 and
missing PI field.)
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Best Local
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10-APR-2001; :
25-APR-2001; :
                                                                                                                                                     The present invention relates to novel human cancer-related genes and proteins (ABZ78120-ABZ78168 and ABRO1789-ABRO1861). The genes and proteins are useful for eliciting a humoral or cellular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the directing the expression of the protein, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            as therapeutic agents. The proteins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The sequence is a human leukocyte antigen (HLA) peptide, used in ar from the invention
                                                                      inhibiting the expression of genes and/or translation of trans as therapeutic agents. The proteins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The sequence is a human leukocyte antigen (HLA) peptide, used in an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New composition comprising a substance that modulates proteins and polynucleotides, useful for therapeutic, diagnostic reagents for eliciting cellular or humoral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABR31017 standard;
                                                                                                                                                                                                                                                                                                                                                                                         Claim 13; Page 485; 1021pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-075555/07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-APR-2002; 2002WO-US011654
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jakobovits A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (AGEN-) AGENSYS INC
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                                                      invention
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2001US-0283112P.
2001US-0286630P.
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42.9%;
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Pred. No.
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4.9e+02;
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Query Match Best Local S Matches 6

6, Similarity

Conservative

25.8**%**; 42.9**%**;

Score 32; DB 6; Pred. No. 4.9e+02;

Length 15;

Mismatches

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Sequence 15

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10-APR-2001;
25-APR-2001;
                                                                                                                                                                         The present invention relates to novel human cancer-related genes and proteins (ABZ78120-ABZ78168 and ABR01789-ABR01861). The genes and proteins are useful for eliciting a humoral or cellular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the diagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, an inhibiting the expression of genes and/or translation of transcripts, an
                                                                                                                                                 as therapeutic agents. The proteins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example
                                                                                                                                                                                                                                                                                      New composition comprising a substance that modulates proteins and polynucleotides, useful for therapeutic, diagnostic reagents for eliciting cellular or humoral
        ADW37611
                                                                                                                         Sequence
                                                                                                                                                                                                                                                            Claim 13; Page 483; 1021pp; English.
                                                                                                                                                                                                                                                                                                                            WPI; 2003-075555/07
                                                                                                                                                                                                                                                                                                                                            Jakobovits A,
Morrison K, I
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human cancer-related protein 83P4B8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human leukocyte antigen.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cytostatic; vaccine; cancer; immune response; HLA;
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                                                                                      Similarity 6; Conserv
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      standard; peptide; 15
                                                                    QQFIQSVLNNGATR 23
                                                                                                                                            invention
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QEILEQVLNRVVTR
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                                                                                       Conservative
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2001US-0283112P.
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                                                                                      Score 32; DB
Pred. No. 4.96
3; Mismatches
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                                                                                  DB 6;
4.9e+02;
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                                                                                                       Length 15;
                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                     Hubert
                                                                                                                                                                                                                                                                                      the structure of prognostic and immune response in
                                                                                                                                                                                                                                                                                                                                                      RS;
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RESULT 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnosing viral diseases and cancer. The peptide epitopes are useful as diagnostic agents for evaluating immune responses, for making antibodies and for evaluating efficacy of a vaccine. Sequences given in ADM29531-ADM37745 represent epitopes of the invention as given in Tables 2-31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 composition comprises an epitope that is joined by an amino acid linker. The epitope is admixed or joined to a CTL or HTL epitope. The epitope is bound to an HLA molecule on the antigen-presenting cell, where when an A2 restricted cytotoxic lymphocyte (CTL) is present, a receptor of the CTL binds to a complex of the HLA molecule and the epitope. Specifically claimed are peptides having allele-specific binding motifs for HLA. The compositions and methods are useful for preventing, treating or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a composition comprising at least one peptide having an isolated, prepared epitope selected from any of the sequences from 30 lists given in the specification. Also disclosed is a method for inducing a cytotoxic T cell response against a pre-selected antigen in a patient expressing a specific MHC class I allele by contacting cytotoxic T cells from the patient with the composition cited above. The
158P1D7 related HLA peptide
                                                          19-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New composition comprising at least one peptide having allele-specific binding motifs for HLA, useful for preventing, treating or diagnosing viral diseases and cancer.
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                                                                                                                                                                   ABJ01432 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 52-379; 382pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-OCT-2000;
20-APR-2001;
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2001US-0285624P.
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41.7%;
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  SEQ ID No 132.
                                                                                                                                                                                                                                                                                                                                                                                                                         5;
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Pred. No. 4.9e+02;
5; Mismatches 2;
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Cytostatic; 158P1D7; cancer; bladder cancer;

mouse; rat; rabbit;

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RESULT 11
ABJ01921
ID ABJ01
XX ABJ01
XX 19-SE
XX 19-SE
XX 158P1
XX Cytos
KW Cat;
KW HLA.
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HLA.
                                 22-AUG-2000;
10-APR-2001;
                                                                                                               22-AUG-2001; 2001WO-US026276
                                                                                                                                                                                                                      WO200216593-A2
                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                     Cytostatic; 158P1D7; cancer; bladder cancer; mouse; rat; rabbit;
                                                                                                                                                                                                                                                                                                                                                                                                                                          158P1D7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-SEP-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 9 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New compositions comprising a gene (designated 158P1D7), its encoded protein or their modulators, useful for treating or diagnosing cancers, particularly bladder cancer, in mammals (e.g. dogs, cats, cows, horses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Challita-Eid
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10-APR-2001; 2001US-0282739P
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                                                                                                                                                                                                                                                                                                                                                      cow; horse; human; vaccine;
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                                                                                                                                                                                                                                                                                                                                                                                                                                       related HLA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Page 130; 181pp; English.
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                                 2000US-0227098P.
2001US-0282739P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                    peptide
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75.0%;
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Pred. No. 2e+06;
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                                                                                                                                                                                                                                                                                                                                                      gene therapy; human leukocyte antigen;
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RESULT 12
ABJ01457
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New compositions comprising a gene (designated 158P1D7), its encoded protein or their modulators, useful for treating or diagnosing cancer particularly bladder cancer, in mammals (e.g. dogs, cats, cows, horse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Faris M, Hubert RS, Raitanc Challita-Eid PM, Jakobovits
                                              New compositions comprising a gene (designated 158P1D7), its encoded protein or their modulators, useful for treating or diagnosing cancers, particularly bladder cancer, in mammals (e.g. dogs, cats, cows, horses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 148; 181pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-425659/45
                                                                                                                                                                                                                                                                                                                                                            Cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                     158P1D7 related HLA peptide
                                                                                                                                                                                                                                                                                                                                                                                                                19-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABJ01457
                                                                                                   WPI; 2002-425659/45.
                                                                                                                           Challita-Eid
                                                                                                                                        Faris M,
                                                                                                                                                                                          22-AUG-2000; 2000US-0227098P
10-APR-2001; 2001US-0282739P
                                                                                                                                                                                                                                22-AUG-2001; 2001WO-US026276
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                                                                                                                                                                                                                                                                                                           Homo sapiens
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                                                                                                                                                                  (AGEN-) AGENSYS INC
                                                                                                                                                                                                                                                                                                                                                 cow; horse;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; peptide; 10
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                                                                                                                                        Hubert RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A,
                                                                                                                                                                                                                                                                                                                                                             158P1D7;
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                                                                                                                            PM,
                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                            Jakobovits
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75.0%;
                                                                                                                                                                                                                                                                                                                                                cancer; bladder cancer; mouse; rat; rabbit; do
an; vaccine; gene therapy; human leukocyte anti
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                                                                                                                                        Raitano AB,
                                                                                                                                                                                                                                                                                                                                                                                      SEQ
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Pred. No. 4.4e+02;
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                                                                                                                                         Afar DEH,
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Disclosure;

Page 131; 181pp; English

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RESULT 13
AAW19443
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The present sequence represents peptide Q2.3.9.10, where at least one amino acid is in the D-configuration. The peptide preferably is modified by an acetyl or carbamyl addition at the N-terminus and/or amidaction at the C-terminus. The peptide, based on the naturally occurring histidine-rich human histatins, have anti-fungal and anti-bacterial activity and are useful in compositions for the treatment of oral, veginal, urethral, infections. It is particularly effective against local and systemic Candida albicans infection, against oral bacterial diseases such as caries and periodontitis (by inhibiting e.g. Streptococcus mutans and
                                                                                                                                                                                                                                                                                                            Anti-fungal and anti-bacterial histatin-based peptide(s) treating Candidal infections, periodontitis and caries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                compositions are useful for treating or diagnosing cancers, particularly bladder cancer, in mammals (e.g. mice, rats, rabbits, dogs, cats, cows, horses or humans). The compositions are also useful for monitoring genetic abnormalities and in preparing cancer vaccines. The nucleic acid of the invention can be used in gene therapy to treat the said disorders. This sequence represents a human leukocyte antigen (HLA) peptide relating
                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1997-052232/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vaginal infection; urethral infection; mucosal infection; ea
respiratory infection; skin infection; ophthalmic infection;
bacterial disease; Streptococcus mutans; Porphyromonas gingi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Candida
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he 158P1D7 protein
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                                                                                                                                                                                                                                                               Fig 1; 72pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and anti-bacterial histatin-based peptide 13-Q2.3.9.10.
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75.0%;
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Pred. No. 4.4e
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4.4e+02;
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The present sequence represents an anti-fungal and anti-bacterial D-amin acid histatin-based peptide 113-Q2.3.9.10, found in human paratoid secretion, where at least one amino acid in the peptide is in the D-configuration. The peptide is preferably modified by an acetyl or carbamyl addition at the N-terminus and/or amidation at the C-terminus. The novel D-amino acid-containing peptide, based on the naturally occurring histidine-rich human histatins, have anti-fungal and anti-bacterial activity and are useful in compositions for the treatment of oral, vaginal, urethral, mucosal, respiratory, skin, ear and ophthalmic fungal or bacterial infections. It is particularly effective against local and systemic Candida abbicans infection, against oral bacterial

infection, ntitis (by

Disclosure;

Fig 1; 63pp;

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                                                                                                                                                                                                                                                                                                                                                                                                                                              Candida albicans; peridontitis; caries; tooth decay; oral infection; vaginal infection; urethral infection; mucosal infection; ear infect respiratory infection; skin infection; ophthalmic infection; bacterial disease; Streptococcus mutans; Porphyromonas gingivalis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Porphyromonas gingivalis) and against Clostridium histolyticum. The peptide has superior anti-fungal (especially anti-fandidal) and anti-bacterial activity, particularly on a weight basin, compared to the longer, naturally occurring histatins. Peptides containing D-residues
                                                                                                                                                                 Anti-fungal and anti-bacterial D-amino acid histatins and histatin-based peptide(s) - useful esp for treating Candidal infections, periodontitis
                                                                                                                                                                                                                     Oppenheim FG,
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55.6%;
                                                                                                                                                                                                                       Spacciapoli P,
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Pred. No. 5.5e+02;
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Matches 5
The invention relates to treating cystic fibrosis via the administration of a histatin, a fragment of histatin, or a histatin related peptide. The peptide that is administered contains between 8 and 20 maino acids and has the sequence: X1-X2-X3-X4-X5-X6-X7-X8-X9-X10-X11-X12-X13-X14-X15-X16-X17-X18-X19-X20-X21-X22-X23 where X1 is App or absent; X2 is Ser or absent; X4 is Ala, His, Leu or absent; X5 is Lys, Gln, Arg, Orn, or another basic amino acid; X6 is Arg, Gln, Lys, or another basic amino acid; X7 is His, Phe, Tyr Leu, or another hydrophobic amino acid; X8 is His, Phe, Tyr Leu, or another hydrophobic amino acid; X8, Arg, Ser, or a basic amino acid; X10 is Tyr; X11 is Lys, His, Phe, Leu, or another hydrophobic amino acid; X12 is Lys, Gln, Arg, Orn, or another basic amino acid; X13 is Lys, Gln, Arg, Orn, or another basic amino acid; X13 is Lys, Gln, Arg, Orn, another hydrophobic amino acid; X13 is Lys, Gln, Arg, Orn, another hydrophobic amino acid; X15 is His, Phe, Tyr, Leu, another hydrophobic amino acid, or absent; X14 is Phe or absent X15 is His, Phe, Tyr, Leu, another hydrophobic amino acid, or absent; X16 is Glu or absent; X17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Streptococcus mutans and Porphyromonas gingivalis) and against Clostridium histolyticum. The D-amino acid-containing peptide has superior anti-fungal (especially anti-candidal) and anti-bacterial activity, particularly on a weight basis, compared to the natural L-amino acid forms of histatins and histatin-based peptides. The presence of D-residues also makes the peptides more resistant to degradation than corresponding L-amino acid versions
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                                                                                                                                                                                                                                                                                                                                   Example
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5; Conserv
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                                                                                                                                                                                                                                                                                                                                   6; Page 13; 27pp; English
                                                                                                                                                                                                                                                                                                                                                                                              cystic fibrosis and combating Pseudomonas and other pulmonary ns in a mammal comprises administering histatin or a fragment
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55.6%;
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Pred. No. 5.5e
3; Mismatches
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5.5e+02;
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RESULT 16
AAB11988
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The invention relates to treating cystic fibrosis via the administration of a histatin, a fragment of histatin, or a histatin-related peptide. The peptide that is administered contains between 8 and 20 amino acids and has the sequence: X1-X2-X3-X4-X5-X6-X7-X8-X9-X10-X11-X12-X13-X14-X15-X16-X17-X18-X19-X20- X21-X22-X23 where X1 is App or absent; X2 is Ser or absent; X3 is His or absent; X4 is Ala, His, Leu or absent; X5 is Lys, Gln, Arg, Orn, or another basic amino acid; X6 is Arg, Gln, Lys, or another basic amino acid; X7 is His, Phe, Tyr Leu, or another hydrophobic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Histatin-related peptide; cystic fibrosis; Pseudomonas aeruginosa; antibiotic resistance; pulmonary infection; antibacterial; antibiotic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Histatin-related
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        activity against Pseudomonas aeruginosa
                                                                                                                                                                                                                                                WPI; 2000-465852/40.
                                                                                                                                                                                                                                                                                                                                             08-JAN-1999;
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                                                                                                                                                  Example
                                                                                                                                                                                                                                                                            Spacciapoli P, Rothstein
                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200040204-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Modified-site
                                                                                                                                                                                               Treating cystic fibrosis and combating Pseudomonas and other infections in a mammal comprises administering histatin or a
                                                                                                                                                                                                                                                                                                             (PERI-)
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5; Conserv
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                                                                                                                                                 Page 12; 27pp;
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                                                                                                                                                                                                                                                                                                                                             99US-00226666
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55.6%;
                                                                                                                                                                                                                                                                               DM,
                                                                                                                                                 English
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                                                                                                                                                                                                                                                                               Friden
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5.5e+02;
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                                                                                                                                                                                                   pulmonary
fragment
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RESULT 17
ABB56747
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Best Local
ABL00010 to ABL01104 represent human nucleic acid oligonucleotides comprising one or more single nucleotide polymorphisms (SNPs). ABB: to ABB56903 represent human peptides encoded by some of the SNP oligonucleotides. The sequences from the present invention can have
                                                                                                                                                                                                                           Isolated human nucleic acids comprising one or more single nucleotide polymorphisms, useful for treating a subject suffering from a pathology, e.g. autoimmune diseases, ascribed to the presence of a sequence
                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-355949/37.
                                                                                                                                                                                                                                                                                                                                                                                                         Shimkets RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-NOV-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; single nucleotide polymorphism; SNP; polymorphism; cytostatic;
immunosuppressive; antiinflammatory; neuroprotective; antimicrobial;
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                                                                                                                                             Page
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QNYKYRQQF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disease;
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                                                                                                                                          636; 674pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0167383P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid sequence SEQ ID NO:1312
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55.6%;
                                                                                                                                          English
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3; Mismatches
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5.5e+02;
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   can have
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The present recruitment it. The CARD

invention relates to the isolation of human caspase domain-12 (CARD-12), and the polynucleotide sequence encoding D family of proteins are involved in apoptosis. The invention

CARD

Example

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Page 18; 112pp; English.

Novel caspase recruitment domain-12, CARD-12, polypeptide useful for treating inflammatory disorders and immune disorders e.g., Crohn's disease, diabetes, multiple sclerosis, Hashimoto's thyroiditis and Grave's disease.

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RESULT 18
ABG72213
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         contact dermatitis; psoriasis; graft versus host disease; sarcoidsis graft rejection; atopic condition; asthma; allergic rhinitis; gastrointestinal allergy; food allergy; eosimophilia; conjunctivitis; glomerular nephritis; viral infection; bacterial infection; Alzheimer's disease; Parkinson's disease; retinitis pigmentosa; Huntington's disease; anaemia; myocardial infarction; stroke; cancer; cytostatic; antiinflammatory; immunosuppressive; neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunosuppressive, cytostatic, antiinflammatory, neuroprotective and antimicrobial activities. Nucleic acids, polypeptides, oligonucleotides and antibodies from the present invention can be used for treating a subject suffering from, at risk for, or suspected of, suffering from a pathology ascribed to the presence of a sequence polymorphism. The pathology may be autoimmune diseases, inflammation, cancer, diseases of the nervous system, and infection by pathogenic microorganisms. The SNPs are also useful for determining which forms of a characterised
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; caspase recruitment domain-12; CARD-12; apoptosis; transgenic; inflammatory disorder; immune disorder; Crohn's disease; reactive arthritis; insulin-dependent diabetes; multiple sclerosis;
                                                                                                                                                                              WPI; 2003-093098/08
                                                                                                                                                                                                               Bertin
                                                                                                                                                                                                                                                                               24-APR-2001; 2001US-00841739
                                                                                                                                                                                                                                                                                                               24-APR-2002; 2002WO-US013009
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                                                                                                                                                                                                                                                                                                                                                                                                                                               dermatological; nephrotropic; ophthalmological;
cerebroprotective; immunogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human CARD-12 peptide used to raise CARD-12 antibodies.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polymorphism are present in individuals. The antibodies may be used in the detection, quantitation and/or cellular or tissue localisation of a polymorphic protein (e.g., for use in measuring levels of the polymorphic protein within appropriate physiological samples)
                                                                                                                                                                                                                                               (MILL-) MILLENNIUM PHARM INC
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                                                                                                                                                                                                                                                                                                                                                                                                              sapiens.
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60.0%;
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Pred. No. 6.5e+02;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 also discloses CARD-12 fusion proteins, antigenic peptides, anti-CARD-12 antibodies, recombinant expression vectors, host cells containing these expression vectors, and non-human transgenic animals. CARD-12 polypeptide and polynucleotide sequences are useful for diagnosing and treating inflammatory and immune disorders such as Crohn's disease, reactive arthritis, Lyme disease, insulin-dependent diabetes, multiple sclerosis, Hashimoto's thyroiditis, Grave's disease, contact dermatitis, psoriasis,
The invention relates to novel retro-inverso peptides or peptide-like molecules which have a high probability of binding to and/or otherwise modulating the function of polypeptides and/or proteins, and to method
                                                                                                    Novel isolated peptide comprising peptide, useful for diagnosing or
                                                                                                                                                          WPI; 2005-151359/16
                                                                                                                                                                                               Mandell
                                                                                                                                                                                                                                                                                                     23-JAN-2001;
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peptide of human
                                                                                                                                                                                                                                                  (MAND/) MANDELL A J. (SELZ/) SELZ K A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nerve growth factor; cytostatic; cancer;
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                                                                                                                                                                                                                                SELZ K A.
SHLESINGER M
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  detection; screening; neoplasm
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                                                                     Page; 50pp; English.
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2001US-00767460.
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j. .15
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Pred. No. 7.1e
3; Mismatches
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                                                                                                       retro-inverso amino acid sequence treating cancer.
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7.1e+02;
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to methods
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    us the invention have cytostatic activity, depending on their polypeptide target. A retro-inverso peptide of the invention is useful for diagnosing or treating cancer, or for detecting contaminants in water, food or soil samples. The present sequence represents a retro-inverso form of a peptide designed to target the human nerve growth factor (NGF) receptor. Note: The present sequence is not shown in the specification, but was derived from ADW86234.
                                                                                      protective immunity in a patient against M. tuberculosis. Tuberculosis is a chronic, infectious disease generally caused by M. tuberculosis in infection, and if left untreated typically results in serious complications and death. Fusion proteins containing the antigen, or DNA molecules can similarly be included with an acceptable carrier in pharmaceutical compositions or in vaccines and administered as above. The polypeptides are also useful for diagnosis of tuberculosis, by contacting dermal cells with at least one polypeptide and detecting an immune response (especially induration) on the patient's skin. Inhibiting the
                                                                                                                                                                                                                                                                                                                                                                              This sequence represents an immunogenic portion of a Mycobacterium tuberculosis antigen of the invention polypoptides are useful for immunotherapy to treat or prevent tuberculosis (especially in humans), e.g. they can be included with an acceptable carrier in pharmaceutical compositions or included in vaccines, and administered to induce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for designing such peptides or peptide-like molecules. Certain peptides of the invention have cytostatic activity, depending on their polypepti
                       response (especially induration) on the patient's skin. Inhibiting the spread of tuberculosis requires vaccination and accurate diagnosis, since antibiotic therapy may not be effective due to the existence of an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    M. tuberculosis antigen clone ORF-1 peptide 1-16.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New isolated Mycobacterium tuberculosis antigens - used products for the prevention, treatment and diagnosis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAY-1997;
05-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW73692
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98US-00073009
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Pred. No. 7.1e+02;
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RESULT 21
AAW73802
                                                                                       CC This sequence represents an immunogenic portion of a Mycobacterium CC tuberculosis antigen of the invention. The polypeptides are useful for CC immunotherapy to treat or prevent tuberculosis (especially in humans), CC e.g. they can be included with an acceptable carrier in pharmaceutical compositions or included in vaccines, and administered to induce CC protective immunity in a patient against M. tuberculosis. Tuberculosis is CC infection, and if left untreated typically results in serious CC complications and death. Fusion proteins containing the antigen, or DNA CC molecules can similarly be included with an acceptable carrier in CC pharmaceutical compositions or in vaccines and administered as above. The CC polypeptides are also useful for diagnosis of tuberculosis, by contacting CC dermal cells with at least one polypeptide and detecting an immune CC response (especially induration) on the patient's skin. Inhibiting the Spread of tuberculosis requires vaccination and accurate diagnosis, since CC spread of tuberculosis requires vaccination and accurate diagnosis, since CC suppositions out be effective due to the existence of an asymptomatic therapy may not be effective due to the existence of an CC asymptomatic but contagious stage and to patient con-compliance. The CC polypeptides overcome concerns of safety and efficacy of current conscious and and accurate diagnosis, since CC and this contaction with live bacteria (usually Bacillus Calmette-Guerin) and concerns of safety and efficacy of current conscious contaction with live bacteria (usually Bacillus Calmette-Guerin) and concerns of safety and efficacy of current conscious contactions and accurate diagnosis.
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Polypeptide comprising immunogenic Mycobacterium tuberculosis antigen useful for immunisation against M. tuberculosis infection to treat or prevent tuberculosis, and in diagnosis of tuberculosis.
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05-MAY-1998;
Sequence 16
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                                                                    lack of sensitivity and specificity of existing
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Similarity 33.3%;
5; Conservation
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98US-00073010
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Pred. No. 7.6e+02;
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                                                                                                                   The present invention relates to the isolation of Mycobacterium CC tuberculosis antigen polypeptides (e.g. Tb224) and the nucleic acids encoding them. The invention describes compounds and methods for the diagnosis of tuberculosis or for inducing protective immunity against tuberculosis. The compounds comprise at least one immunogenic portion of one or more Mycobacterium proteins and nucleic acid molecules encoding such polypeptides. The Mycobacterium proteins and nucleic acid molecules encoding them can be used in diagnostic kits for the detection of Mycobacterium infection in patients and biological samples. The compounds of the invention and antibodies directed against the Mycobacterium compounds of the invention and antibodies directed against the Mycobacterium proteins may be used in vaccines for immunisation against Mycobacterium compounds infections. The nucleic acids encoding the Mycobacterium proteins may be used in gene therapy. ANU08142-ANU08158 represent peptides (ORF-1-1 to ORF-1-17) which overlap to the open reading frame ORF-1
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                                                                                                                                                                                                                                                                                                                                                                                                            An isolated polypeptide comprising a Mycobacterium antigen, e.g., from Mycobacterium tuberculosis, useful in a vaccine for enhancing an immune
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                                                                                                                                                                                                                                                                                                                                                              Example 1; Page 127; 161pp; English.
                                                                                                                                                                                                                                                                                                                                                                                             response to and inhibiting development of a Mycobacterium
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Campos-Neto A,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mycobacterium tuberculosis overlapping peptide ORF-1-16.
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CT cell stimulating antigen. Also included are (1) an isolated DNA
CS sequence consisting of DNA sequences isolated using the new method, their
CC complement or DNA sequences that hybridise to them, (2) an expression
CC vector comprising (1); (3) a host cell transformed with the expression
CC vector of (2); and (4) a polypeptide comprising an immunogenic portion of
CC antigen, or a variant of the antigen that differs only in conservative
CC substitutions and/or modifications, where the antigen comprises an amino
CS acid sequence encoded by (1). The method is useful for identifying and
CC isolating new antigens that stimulate CD4+ T cells. In particular, the
CC which the stimulation of CD4+ T cells is believed to play a role in the
CC which the stimulation of CD4+ T cells is believed to play a role in the
CC with infectious disease agents such as Mycobacterium tuberculosis or
CC telshmaniasis, tumour tissue, or autoimmune disorders. The present method
CC is less technically difficult and less time-consuming than prior methods.
CC present method is also more suitable for high-throughput use. The
                                                                                                                                   Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cell stimulating antigens or antigens containing antibody epitopes comprises determining the level of CD4+ T cell stimulation when incubate with dendritic cells that have been exposed with a host cell transformed with dendritic cells that have been exposed with a host cell transformed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Identifying DNAs encoding CD4+ T cell stimulating antigens, for isolanew CD4+ T cell-stimulating antigens associated with e.g. infections, comprises measuring the levels of interferon-gamma production or cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             M. tuberculosis CD4+ antigen ORF-1 1-1-1-17 peptide #16.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Skeiky YAW, Dillon DC,
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                                                                                                                                                                                                                                                                   Sequence 16
                                                                                                                                                                                                                                                                                                                                  cell-stimulating antigen from M. tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to identifying DNA sequences that encode CD4+ T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-617730/66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2002081579-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-NOV-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Page 33; 46pp; English
NYEQQEQASQQILSS 16
                                                                 NYKYROOFIQSVLNN 19
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                                                                                                                                   Conservative
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                                                                                                                                Pred. No. 7.6e
6; Mismatches
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dendritic cell; T cel
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7.6e+02;
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                                                                             region from a Brassica plant gene, a DNA sequence of interest other than the native coding sequence, and a transcription termination region. The method is useful for obtaining plants having modified phenotype or for altering the phenotype of a plant seed or tissue. The DNA constructs are used in manipulating plant cells to provide for regulated transcription, such as light inducible transcription, in a plant tissue or plant part of interest at particular stages of plant growth or in response to external control. These constructs are also used for modulation of expression of endogenous products as well as production of exogenous products in the seed. Sequences AAB85941-47 represent fragments of storage proteins used in comparison studies with the storage protein 2All
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-JUL-1990;
10-AUG-1993;
07-JUN-1995;
07-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Napin
2All;
                                                           Sequence 17 AA;
                                                                                                                                                                                                                                                    The invention provides a method for obtaining a plant which produces at least one seed having a modified phenotype. The method involves transforming a host plant cell with a DNA construct which consists of operably linked components in the direction of transcription, a promote
                                                                                                                                                                                                                                                                                                                                                                          Obtaining a plant that produces a seed with a modified phenotype or altering a seed phenotype, comprises transforming a plant cell with construct consisting of operably linked components in the direction
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29-APR-1988;
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alpha-amylase.
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46.2%;
                 Score 31; DB 4;
Pred. No. 8.2e+02;
   Mismatches
                             Length 17;
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RESULT 24 AAB85946

Search completed: January 26, 2006, 07:57:58 Job time : 84.5172 secs

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure;
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US-09-073-010-6
US-09-935-430-19
US-09-935-032-6
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 56, Appl
59, Appl
60, Appl
59, Appl
50, Appl
50, Appl
51, Appl
51, Appl
52, Appl
58, Appl
59, Appl
50, ```

ALIGNMENTS

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 RESULT 1
US-09-935-430-132
 Best Loc
Matches
 GENERAL INFORMATION:
 Sequence 132, Application US/09935430 Patent No. 6863892
 SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 157
LENGTH: 10
 Query Match
Best Local S
 SOFTWARE: PatentIn Ver. SEQ ID NO 132
 Sequence 157, Application US/09935430
Patent No. 6863892
 PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 700
 APPLICANT: LEVIN, ELANA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, AVA
APPLICANT: JAKOBOVITZ, AVA
APPLICANT: JAKOBOVITZ, AVA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
FILE REFERENCE: 51158-20050.00
CURRENT APPLICATION NUMBER: US/99/935,430
CURRENT FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: 60/287,739
PRIOR FILING DATE: 2000-04-10
NUMBER OF SEQ ID NOS: 700
 -09-935-430-157
 APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, AYA
APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
FILE REFERENCE: 51158-20050.00
 APPLICANT:
 FILE REFERENCE: 51158-20050.00
CURRENT APPLICATION NUMBER: US/09/935,430
CURRENT FILING DATE: 2001-08-22
 APPLICANT: FARIS, MARY APPLICANT: HUBERT, RE
 APPLICANT: FARIS, MARY
 TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
 OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
TYPE: PRT
 ENGTH:
 INFORMATION:
 15
 μ
 Similarity 6; Conserv
 SVLNNGAT 22
 AFAR, DANIEL
LEVIN, ELANA
CHALLITA-EID, PIA
 HUBERT, RENE
RAITANO, ARTHUR
 HUBERT, RENE
RAITANO, ARTHUR
AFAR, DANIEL
 Conservative
 25.0%;
75.0%;
 ; Score 31; DB
; Pred. No. 4.6e
1; Mismatches
 4.6e+05;
 DB 2;
 Length 9;
 Indels
 0
 Gaps
 0
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 ; FEATURE: ; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif US-09-935-430-157
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 ş
 US-08-973-563A-37
 ; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif US-09-935-430-621
 US-09-935-430-621
 Sequence 621, App. Sequence 621, App. No. 6863892
 SOFTWARE: PatentIn Ver.
SEQ ID NO 621
LENGTH: 10
 Matches
 Sequence 37, Application US/08973563A Patent No. 5885965
 Query Match
 Query Match
 Matches
 Best Local Similarity
 CURRENT APPLICATION NUMBER: US/09/935,430
CURRENT FILLING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILLING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 700
 APPLICANT:
 APPLICANT: FARIS, MARY
APPLICANT: HUBERT, RE
APPLICANT: RAITANO, A
 APPLICANT: LEVIN, ELANA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, AVA
APPLICANT: JAKOBOVITZ, AVA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
TILE OF INVENTION: OTHER CANCERS
FILE REFERENCE: 51158-20050.00
 GENERAL INFORMATION:
 ORGANISM: Artificial Sequence FEATURE:
 ORGANISM: Artificial Sequence
 TYPE: PRT
 APPLICANT: Spacciapoli, Peter
APPLICANT: Roberts, F.D.
APPLICANT: Friden, Philip M.
APPLICANT: Friden, Philip M.
TITLE OF INVENTION: Anti-Fungal D-Amino Acid Histatin-Based
TITLE OF INVENTION: Peptides
NUMBER OF SEQUENCES: 37
 APPLICANT: Oppenhei APPLICANT: Xu, Tao
 CORRESPONDENCE ADDRESS:
STREET: IWC STREET: Lexington
 Local Similarity 75. hes 6; Conservative
 ADDRESSEE: Hamilton, Brook, STREET: Two Militia Drive
 INFORMATION:
 15 SVLNNGAT 22
 15 SVLNNGAT 22
 1 SLLNNGLT 8
 2 SLLNNGLT 9
 6;
 HUBERT, RENE RAITANO, ARTHUR
 AFAR, DANIEL
 Application US/09935430
 Oppenheim, Frank G
 Conservative
 25.0%;
75.0%;
 25.0%;
75.0%;
 Score 31;
Pred. No.
 Score 31; DB
Pred. No. 79;
 Smith & Reynolds,
 Mismatches
 DB 2; Length 10
 2
 Length 10;
 Indels
 0
 0
 Gaps
 Gaps
 0
 0
```

ZIP: 02173
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
TOM PC COM

Floppy disk

COUNTRY: US

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 á
 US-08-973-559-37
 US-08-973-563A-37
 Query Match 25.0%;
Best Local Similarity 55.6%;
Matches 5; Conservative
 Patent No. 5912230
 COMPUTER: IBM PC COMPATIBLE

COMPUTER: IBM PC COMPATIBLE

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTMARE: PACENTIA Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/88/973,563A

FILING DATE: 07-UN-1996

CLASSIFICATION: 514

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/485,273

FILING DATE: 07-UN-1995

ATTORNEY/AGENT INFORMATION:

NAME: BEOCK PRIOR AFFINE PRIOR PRIOR AFFILING DATE: 07-UN-1995
 GENERAL INFORMATION:
 TELEFAX: 781-861-9540
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIAN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/973,559
FILING DATE: 07-JUN-1996
 REFERENCE/DOCKET NUMBER: PE
TELECOMMUNICATION INFORMATION:
 NUMBER OF SEQUENCES: 3
 APPLICANT: FRIDEN, PHILIP M.
TITLE OF INVENTION: Anti-Fungal and Anti-Bacterial
TITLE OF INVENTION: Histatin-Based Peptides
NUMBER OF SEQUENCES: 37
 MOLECULE TYPE: peptide
 APPLICANT:
 LOCATION: 1..12
OTHER INFORMATION:
OTHER INFORMATION:
 COUNTRY:
 STREET: Two Mil:
CITY: Lexington
 NAME/KEY: Region LOCATION: 1..12
 LENGTH: 12 amino acids
 REGISTRATION NUMBER:
 ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P
 STRANDEDNESS:
 TELEPHONE:
 02173
 4 QNYKYRQQF 12
 OHHGYKOOF 11
 3
 Application US/08973559
 Two Militia Drive
 XU, TAO
ROBERTS, F. D.
 S
 SPACCIAPOLI,
 OPPENHEIM, FRANK G
 linear
 781-861-6240
 David E.
 /note= "At least one amino acid
must have a D configuration."
 22,592
 37:
 PETER
 Score 31; DB pred. No. 98; 3; Mismatches
 PER95-02A2
 DB 1; Length 12
 Indels
 0
 <u>.</u>
```

Sequence 14, Application US/08505250 Patent No. 6183983

INFORMATION:

APPLICANT: Sato, Haruya APPLICANT: Yamamoto, Keiji APPLICANT: Suzuki, Kokichi APPLICANT: Ikeda, Masahiro

APPLICANT: Sakagami, Masahiro
APPLICANT: Taniguchi, Makoto
TITLE OF INVENTION: PROTEIN MODIFICATION METHOD

URRENT APPLICATION NUMBER: US/08/505,250

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US-08-505-250-14
 RESULT 7
 S
 ; OTHER INFORMATION: Derived from Homo sapiens US-09-226-666-14
 US-09-226-666-14
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 RESULT 6
 US-08-973-559-37
 SEQ ID NO 14
LENGTH: 12
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
 Query Match
Best Local Similarity
Matches 5; Conserv
 GENERAL INFORMATION:
 Matches
 Query Match
 Sequence 14,
 APPLICANT: Spacciapoli, Peter
APPLICANT: Rothstein, David M.
APPLICANT: Friden, Phillip M.
TITLE OF INVENTION: METHOD FOR TREATING CYSTIC FIBROSIS
FILE REFERENCE: 50032/007001
 Patent No.
 NUMBER OF SEQ ID NOS: 18
SOFTWARE: FastSEQ for Windows Version 4.0
 CURRENT APPLICATION NUMBER: US/09/226,666A CURRENT FILING DATE: 1999-01-08
 INFORMATION FOR SEQ ID NO:
 STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: peptide
 APPLICATION NUMBER: US 08/481,888 FILING DATE: 07-JUN-1995 ATTORNEY/AGENT INFORMATION:
 SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
 TELECOMMUNICATION INFORMATION: TELEPHONE: 781-861-6240
 PRIOR APPLICATION DATA:
 y Match 25.0%;
Local Similarity 55.6%;
hes 5; Conservative
 REFERENCE/DOCKET NUMBER:
 NAME: Brook, David E. REGISTRATION NUMBER:
 LENGTH: 12 amino
TYPE: amino acid
 TELEPHONE:
 3 OHHGYKOOF 11
 4 QNYKYROOF 12
 4 QNYKYRQQF 12
 |:: |:|||
| QHHGYKQQF 11
 Application US/09226666A
 Conservative
 781-861-9540
 25.0%;
55.6%;
 22,592
 37:
 Score 31; DB 2; Pred. No. 98;
 Mismatches
 PER95-01A2
 Score 31; DB
Pred. No. 98;
 Mismatches
 DB 1;
 1;
 Length 12
 Length 12;
 Indels
 Indels
 0,
 <u>,,</u>
 Gaps
 Gaps
 0
 0
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CURRENT FILING DATE: 1995-11-29

EARLIER APPLICATION NUMBER: PCT/JP95/00298

EARLIER FILING DATE: 1995-02-27

EARLIER APPLICATION NUMBER: JP 198187/94

EARLIER FILING DATE: 1994-08-23

NUMBER OF SEQ ID NOS: 53

SOFTWARE: PATENTIN Ver. 2.0

SEQ ID NO 14

ENGTH: 14
 ; Sequence 49, Applicat; Patent No. 6555653; GENERAL INFORMATION:
 RESULT 9
US-09-073-009-49
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 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic; OTHER INFORMATION: peptide US-08-505-250-14
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 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic; OTHER INFORMATION: peptide US-08-505-250-14
 US-08-505-250-14
 Sequence 14, Application US/08505250 Patent No. 6322996
 Query Match
Best Local (
 Matches
 Matches
 Query Match
 PRIOR APPLICATION NUMBER: PCT/JP95/00298
PRIOR FILING DATE: 1995-02-27
PRIOR APPLICATION NUMBER: JP 198187/94
PRIOR FILING DATE: 1994-08-23
NUMBER OF SEQ ID NOS: 53
 APPLICANT: Sakagami, Masahiro
APPLICANT: Taniguchi, Makoto
TITLE OF INVENTION: PROTEIN MODIFICATION METHOD
FILE REFERENCE: 110-511
 SOFTWARE: PatentIn Ver. 2.0
EQ ID NO 14
 CURRENT APPLICATION NUMBER: US/08/505,250 CURRENT FILING DATE: 1995-11-29
 APPLICANT:
 APPLICANT:
 APPLICANT: Sato, Haruya
 ORGANISM: Artificial Sequence FEATURE:
 TYPE: PRT
 ORGANISM: Artificial Sequence FEATURE:
 TYPE: PRT
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
 LENGTH:
 Local
 INFORMATION:
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 Similarity
7; Conserve
 Similarity
7; Conserve
 KKRSRFDQDVLN 14
 Yamamoto, we Yamamoto, Kokichi
 KYROOFIOSVLN 18
 KKRSRFDQDVLN 14
 KYROOFIQSVLN 18
 Application US/09073009
 Ikeda, Masahiro
Alderson, Mark
Dillon, Davin C.
Skeiky, Yasir A.W.
Campos-Neto, Antonio
 Conservative
 Conservative
 25.0%;
58.3%;
 25.0%;
58.3%;
 Score 31; DB 2;
Pred. No. 1.2e+02
 Score 31; DB 2;
Pred. No. 1.2e+02,
1; Mismatches
 Mismatches
 Length 14;
 Length 14;
 Indels
 <u>,</u>
 0,
 Gaps
 Gaps
 0
 0
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RESULT 10
US-09-073-010-49
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 US-09-073-009-49
 Patent No. 6613881

GENERAL INFORMATION:

APPLICANT: Alderson, Mark
APPLICANT: Dillon, Davin C.

APPLICANT: Skeiky, Yasir A.M.
APPLICANT: Campos-Neto, Antonio

TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY AND DIAGNOSIS OF TUBERCULOSIS AND NUMBER OF SEQUENCES: 144
 Best Local Similarity
Matches 5; Conserv
 COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/073,010

FILING DATE: 05-MAY-1998

CLASSIFICATION:
 Query Match
 TELEFAX: 206-682-6031 INFORMATION FOR SEQ ID NO:
 MOLECULE TYPE:
ORIGINAL SOURCE:
 SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
TYPE: amino acid
STRANDEDNESS: single
 ATTORNEY/AGENT INFORMATION:
NAME: MAKI, DAVId J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.441C1
 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
 NUMBER OF SEQUENCES: 144
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY
 TELECOMMUNICATION INFORMATION: TELEPHONE: 206-622-4900
 TITLE OF INVENTION:
 CORRESPONDENCE ADDRESS:
ATTORNEY/AGENT INFORMATION:
 APPLICATION NUMBER: FILING DATE: 05-MAY CLASSIFICATION:
 STREET: 6300 (
 TOPOLOGY:
 ZIP: 98104
 ORGANISM:
 COUNTRY:
 ADDRESSEE:
 N
 98104
 Seattle
 NYEQQEQASQQILSS 16
 NYKYRQQFIQSVLNN 19
 Washington
 Washington
 Application US/09073010
 6300 Coumbia Center,
 6300 Coumbia Center,
 Mycobacterium tuberculosis
 Conservative
 linear
 SEED and BERRY
 peptide
 05-MAY-1998
 COMPOUNDS AND DIAGNOSIS OF
 25.0%;
33.3%;
 US/09/073,009
 49:
 6,
 Score 31; DB 2;
Pred. No. 1.4e+02;
 701
 Mismatches
 701 Fifth Ave
 Fifth Ave
 Version
 #1.30
 #1.30
 Length 16;
 Indels
 0,
 Gaps
 TUBERCULOSIS AND ME
 0
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APPLICANT: ROGMAN, Toby C.

APPLICANT: ROGMAN, Toby C.

TITLE OF INVENTION: Monoclonal Human Natural Antibodies

FILE REFERENCE: 4436/1C074-US1

CURRENT APPLICATION NUMBER: US/09/462,118

CURRENT FILING DATE: 1999-12-18

NUMBER OF SEQ ID NOS: 36

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 30

LENGTH: 12

TYPE: PRT
ORGANISM: Human
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 8
 US-09-462-118-30
 US-09-462-118-30
 RESULT 11
 US-09-073-010-49
 TELEFAX: 206-684-800 INFORMATION FOR SEQ ID NO: 45
SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
TYPE: amino acid
 Sequence 1034, Appearent No. 68497
 Patent No. 6610833
GENERAL INFORMATION:
 Sequence 30, Application US/09462118 Patent No. 6610833
 Query Match
Best Local :
 GENERAL INFORMATION:
 Matches
 Query Match
 Matches
 Best Local Similarity
 -09-623-548A-1034
FILE REFERENCE: 2110
CURRENT APPLICATION NUMBER: US/09/623,548A
CURRENT FILING DATE: 2000-09-05
PRIOR APPLICATION NUMBER: 60/134,406
PRIOR FILING DATE: 1999-05-17
 APPLICANT: Milner, Peter
APPLICANT: Holmes, Darren
APPLICANT: Thibaudeau, Karen
TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
TITLE OF INVENTION: COMPONENTS
 APPLICANT: Conjuchem,
APPLICANT: Bridon, Do
 TOPOLOGY: lin
MOLECULE TYPE:
ORIGINAL SOURCE:
 REFERENCE/DOCKET NUMBER: 21
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-622-4900
 ORGANISM: Mycobacterium tuberculosis
 STRANDEDNESS:
 REGISTRATION NUMBER:
 2 MAQNYKYRQ 10
 2 NYEQQEQASQQILSS 16
 5 NYKYRQQFIQSVLNN 19
 Similarity 33.: 5; Conservative
 LAENYKSQQ 9
 Bridon, Dominique
Ezrin, Alan
 Application US/09623548A
 Conservative
 sss: single
linear
 peptide
 24.2%;
55.6%;
 25.0%; Score 31; DB 2; 1
33.3%; Pred. No. 1.4e+02;
tive 6; Mismatches 4
 31,392
 49:
 210121.440C1
 Score 30; DB 2;
Pred. No. 1.4e+02;
 Mismatches
 Length 12;
 Length 16
 Indels
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 Gaps
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RESULT 14

PCT-US93-03748-1

Sequence 1, Application PC/TUS9303748 GENERAL INFORMATION:

APPLICANT: Howard, Russell J. APPLICANT: Leung, Lawrence L.K. TITLE OF INVENTION: Modulation

Modulation of Thrombospondin-CD36 Interactions

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 ; ORGANISM: Artificial Sequence ; PEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic ; OTHER INFORMATION: Peptide US-09-657-276-1034
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 ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic ; OTHER INFORMATION: Peptide US-09-623-548A-1034
 SOFTWARE: Pa
SEQ ID NO 1034
 Sequence 1034, Application US/09657276 Patent No. 6887470
 SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 1034
 Matches
 Query Match
 Matches
 Query Match
 APPLICANT: Holmes, Darren
APPLICANT: Thibaudeau, Karen
TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
TITLE OF INVENTION: COMPONENTS
 PRIOR APPLICATION NUMBER: 60/1
PRIOR FILING DATE: 1999-09-10
PRIOR APPLICATION NUMBER: 60/1
PRIOR FILING DATE: 1999-10-18
 CURRENT APPLICATION NUMBER: US/09/657,276
CURRENT FILING DATE: 2000-09-07
 PRIOR FILING DATE: 1999-09-10
PRIOR APPLICATION NUMBER: 60/159,783
PRIOR FILING DATE: 1999-10-18
NUMBER OF SEQ ID NOS: 1617
 LENGTH: 18
TYPE: PRT
 NUMBER OF SEQ ID NOS:
 PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1999-(
 FILE REFERENCE:
 APPLICANT:
 APPLICANT:
 APPLICANT:
 APPLICANT:
 TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
 LENGTH: 18
 Local
 Local
 INFORMATION:
7 AASHIYQNQFVQ 18
 7 AASHIYQNQFVQ 18
 3 AQNYKYRQQFIQ 14
 h 24.2%;
Similarity 41.7%;
5; Conservative
 Similarity 41. 5; Conservative
 AQNYKYRQQFIQ 14
 PatentIn Ver. 2.1
 Bridon, Dominique
Ezrin, Alan
 Milner, Peter
 2110
 1999-05-17
 1617
 60/134,406
 60/153,406
 Score 30; DB
Pred. No. 2.3e
4; Mismatches
 Score 30; DB 2; Pred. No. 2.3e+02;
 DB 2;
. 2.3e+02;
. 3;
 Length 18;
 Length 18;
 Indels
 0
 0
 Gaps
 Gaps
 0
 0
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 RESULT 15
US-08-816-105A-14
 PCT-US93-03748-1
 Best Local Similarity
Matches 5; Conserva
 Query Match
 Patent No. 5989882
 TELEFAX: 201-822-7039
TELEX: 219165
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
 GENERAL INFORMATION:
 TITLE OF INVENTION: ITTILE OF INVENTION: TITLE OF INVENTION: TITLE OF INVENTION: ITTILE OF INVENTION: UNMBER OF SEQUENCES:
 STREET: STREET: CITY: Madison CITY: New Jersey
 STREET: but
STREET: but
CITY: Tarrytown
CTATE: New York
TISA
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.50 inch, 1.4 Mb storage
COMPUTER: Apple Macintosh 6500
OPERATING SYSTEM: System 7.5
SOFTWARE: WordPerfect 3.5
 APPLICANT: Goeke, Kla
APPLICANT: Piepersber
APPLICANT: Stratmann,
 FILING DATE: 30-APR-1992
ATTORNEY/AGENT INFORMATION:
NAME: Dulak, Norman C.
REGISTRATION NUMBER: 31,608
REFERENCE/DOCKET NUMBER: DX
 CORRESPONDENCE ADDRESS
 APPLICANT:
 MOLECULE TYPE: peptide
 TELECOMMUNICATION INFORMATION: TELEPHONE: 201-822-7375
 PRIOR APPLICATION DATA:
APPLICATION NUMBER:
 SOFTWARE: Microsoft WO CURRENT APPLICATION DATA:
 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
 NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRE
 TELEPHONE: 201-822-7039
 APPLICATION NUMBER: FILING DATE: 19930
 COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh 6.0.5
SOFTWARE: Microsoft Word 4.00B
 TOPOLOGY:
 CLASSIFICATION:
 ADDRESSEE:
 ADDRESSEE:
 LENGTH:
 14,
 7
 10591-5144
 07940
 AMINO ACID
 AASHIYQNQFVQ 18
 AQNYKYROOFIQ 14
 Application US/08816105A
 E: Schering-Plough Corporation
One Giralda Farms
 E: Sprung Kramer Schaefer & Briscoe
660 White Plains Road
 18 amino acids
 Crueger, Anneliese; Dellweg, Hans-Georg; Lenz, Jurgen; Schroder, Werner; Pape, Hermann; Goeke, Klaus; Schaper, Beate; Hemker, Michael; Piepersberg, Wolfgang; Distler, Jurgen; Stratmann, Ansgar
 Conservative
 Floppy disk
 19930428
 PROCESSES FOR PREPARING ACARVIOSYL TRANSFERASE AND FOR USING IT IN THE CONVERSION OF ACARBOSE HOMOLOGUES INTO ACARBOSE, FOR THE PREPARATION OF ACARBOSE HOMOLOGUES
 24.2%;
41.7%;
 16
 07/876,287
 PCT/US93/03748
 4; Mismatches
 Score 30; DB 4;
Pred. No. 2.3e+02;
 DX0270K
 DB 4; Length 18
 0
 Gaps
 0,
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 ; OTHER INFORMATION: Description of Artificial Sequence: Peptide US-09-935-430-180
 US-09-935-430-180
 US-08-816-105A-14
 PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 700
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 180
 APPLICANT: FARIS, MARY
APPLICANT: HUBERT, RENI
APPLICANT: RAITANO, ARY
APPLICANT: AFAR, DANIEL
APPLICANT: LEVIN, ELANA
APPLICANT: LEVIN, ELANA
 GENERAL
 Matches
 Matches
 Query Match
Best Local :
 Sequence 180,
 Query Match
 Patent No. 686389:
 PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE 19625269.5
FILING DATE: 25-JUN-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE 19611252.4
FILING DATE: 22-MAR-1996
ATTORNEY/ACENT INFORMATION:
NAME: Kurt G. Briscoe
 APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, AYA
APPLICANT: JAKOBOVITZ, AYA
APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
FILE REFERENCE: 51158-20059.00
CURRENT APPLICATION NUMBER: US/09/935,430
CURRENT FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
 TELEFAX: (914) 332-1844 INFORMATION FOR SEQ ID NO: 14:
 TYPE: PRT
ORGANISM: Artificial Sequence
 LENGTH: 10
 NAME: Kurt G. Briscoe
REGISTION NUMBER: 33,141
REFERENCE/DOCKET NUMBER: Ba
TELECOMMUNICATION INFORMATION:
TELEPHONE: (914) 332-1700
 SEQUENCE CHARACTERISTICS:
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: FILING DATE: 14-MAR CLASSIFICATION: 435
 Local Similarity
nes 8; Conserv
 TOPOLOGY:
 TYPE: amino acid
 ENGTH:
 INFORMATION:
 12 FIQSVLNNG 20
 5 NYKYROOFIOSVLNNGATR 23
 Similarity 6; Conserv
 DYLYEQULI-TFLDNQDTR 18
FQLSLLNNG
 AFAR, DANIEL
LEVIN, ELANA
 RAITANO, ARTHUR
 18 amino acids
 Application US/09935430
 Conservative
 Conservative
 linear
 UMBER: US/08/816,105A
14-MAR-1997
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 23.0%;
 22.6%;
66.7%;
 Bayer

 Mismatches

 Score 28; DB 2; LT
Pred. No. 2.5e+02;
 Score 28.5;
Pred. No. 4.
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 Length 10;
 Length 18;
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PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 700
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 425
LENGTH: 10
TYPE: par
 FILE REFERENCE: 3765
CURRENT APPLICATION NUMBER: US/09/411,706
CURRENT FILING DATE: 1999-10-01
NUMBER OF SEQ ID NOS: 6
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 6
LENGTH: 12
TYPE: PRT
TYPE: PRT
TYPE: PRT
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 RESULT 18
US-09-411-706-6
 ; OTHER INFORMATION: Description of Artificial Sequence: consensus ; OTHER INFORMATION: peptide US-09-411-706-6
 ; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
US-09-935-430-425
 GENERAL INFORMATION:
APPLICANT: Lane, K
 Sequence 6, Application US/09411706 Patent No. 6312956
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 -09-935-430-425
 TITLE OF INVENTION: NUCLEAR TARGETED PEPTIDE NUCLEIC ACID OLIGOMER
 FILE REFERENCE: 51158-20050.00
CURRENT APPLICATION NUMBER: US/09/935,430
CURRENT FILING DATE: 2001-08-22
 APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN
TITLE OF INVENTION: USEPUL IN THE TREATMENT AND DETECTION
TITLE OF INVENTION: OTHER CANCERS
 APPLICANT:
 FEATURE:
 ORGANISM: Artificial Sequence
 APPLICANT:
 FEATURE:
 INFORMATION:
 425,
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 Similarity 6; Conserv
 Similarity 57.: 4; Conservative
 686389
YKYRPEY 11
 YKYRQQF 12
 FOLSLLNNG 9
 HUBERT, RENE
RAITANO, ARTHUR
 LEVIN, ELANA
CHALLITA-BID,
 HUBERT,
 AFAR, DANIEL
 Application US/09935430
 Conservative
 Kirk B.
 22.6%;
66.7%;
 22.6%;
57.1%;
 2001-08-2
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Pred. No. 2.5e+02;
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RESULT 19

US-07-918-181A-20

Application US/07918181A

Sequence 20, Patent No. 5

GENERAL INFORMATION

APPLICANT:

Dana

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 RESULT 20
US-09-543-940-9
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 US-09-935-032-6
 US-09-935-032-6
 US-09-543-940-9
 PRIOR APPLICATION NUMBER: 60/128,106
PRIOR FILING DATE: 1999-04-07
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 9
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LENGTH: 12
TYPE: PRT
 Query Match
Best Local Similarity
Matches 4; Conserv
 GENERAL INFORMATION:
APPLICANT: Lane, Kirk B.
TITLE OF INVENTION: NUCLEAR TARGETED PEPTIDE NUCLEIC ACID OLIGOMER
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 GENERAL INFORMATION:
 Sequence 9, Application US/09543940 Patent No. 6613742
 Sequence 6, Applic Patent No. 6623966
 FILE REFERENCE: 3765
CURRENT APPLICATION NUMBER: US/09/935,032
CURRENT FILING DATE: 2001-08-22
 APPLICANT: Huang, Ziwei
APPLICANT: Luo, Zhaowen
APPLICANT: Zhou, Naiming
APPLICANT: Luo, Jiansong
APPLICANT: Luo, Jiansong
APPLICANT: Luo, Diansong
APPLICANT: Luo, Diansong
APPLICANT: Luo, Jiansong
APPLICANT: Luo, Jiansong
 CURRENT APPLICATION NUMBER: US/09/543,940 CURRENT FILING DATE: 2000-04-06
 PRIOR APPLICATION NUMBER: US/09/411,706
PRIOR FILING DATE: 1999-10-01
NUMBER OF SEQ ID NOS: 6
 LENGTH: 13
TYPE: PRT
ORGANISM: Artificial Sequence
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OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: peptide containing segment from C-terminal reg
OTHER INFORMATION: of human SDF-1 protein
 FILE REFERENCE:
 SOFTWARE: PatentIn Ver. 2.1
 OTHER INFORMATION: Description of Artificial Sequence: consensus OTHER INFORMATION: peptide
 ORGANISM: Artificial Sequence
 FEATURE:
 N
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 7 KYRQQFIQSVLN 18
 5 YKYRPEY 11
 Similarity
 4
KWIQEYLEKALN 13
 YKYROOF 12
 Application US/09935032
 Conservative
 Conservative
 8321-40
 2000-04-06
 22.6%;
33.3%;
 22.6%;
 5
 Score 28; DB 2;
Pred. No. 3.1e+02;
 Score 28; DB 2;
Pred. No. 3.4e+02
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TITLE OF INVENTION:

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US-08-231-575-20
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 RESULT 22
 US-07-918-181A-20
 Best Loc
Matches
 Sequence 20, Application US/08231575 Patent No. 5565336 GENERAL INFORMATION:
 Query Match
 TELEFAX: 212-645-2054
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
 APPLICANT: Fowlkes,
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
 FILING DATE: 22-APR-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/918,181
 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/231,575
 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
 CORRESPONDENCE ADDRESS:
ADDRESSEE: ImClone Systems Incorporated
STREET: 180 Varick Street
 MOLECULE TYPE: peptide HYPOTHETICAL: NO ANTI-SENSE: NO FRAGMENT TYPE: C-termin
 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
 TELECOMMUNICATION INFORMATION:
 ATTORNEY/AGENT INFORMATION:
 SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
 CORRESPONDENCE ADDRESS
 NUMBER OF SEQUENCES:
 Local Similarity les 8; Conserv
 NAME: Sheets, Eric J.
REGISTRATION NUMBER: 30,326
REFERENCE/DOCKET NUMBER: FO
 APPLICATION NUMBER: US/07/918,181A FILING DATE: 23-JUL-1992 CLASSIFICATION: 435
 STREET: 180 Va
CITY: New York
 COUNTRY: U
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CITY: New York
FILING DATE:
 TOPOLOGY:
 TELEPHONE:
 COUNTRY:
 ADDRESSEE:
 TYPE: amino acid
 ENGTH:
 RANDEDNESS:
 10 QQFIQSVLNNGATRQ 24
 10014
 QEFLOSSIR--ALRO 14
 New York
 New York
 15 amino acids
 E: ImClone Systems Incorporated
180 Varick Street
 Fowlkes, Dana M.
 United States
 United States
 Conservative
 212-645-1405
 linear
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23-JUL-1992
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 Score 28;
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 DB 1; Length 15;
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PCT-US93-06928-20
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LENGTH: 15 amino acids
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 CLASSIFICATION:
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FILING DATE: 23-JUL-1992
ATTORNEY/AGENT INFORMATION:
NAME: Fit TYPICS N
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 REFERENCE/DOCKET NUMBER: FO TELECOMMUNICATION INFORMATION:
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 SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
 NUMBER OF SEQUENCES: 3
 TITLE OF INVENTION:
 SEQUENCE CHARACTERISTICS
 ATTORNEY/AGENT INFORMATION:
 ANTI-SENSE:
 TELECOMMUNICATION INFORMATION:
 COMPUTER: IBM FC
OPERATING SYSTEM:
 Local Similarity hes 8; Conserv
 APPLICATION NUMBER: FILING DATE: 199307
 STREET: 180 Va
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STATE: New Yor
 NAME: Feit, Irving N. REGISTRATION NUMBER:
 TOPOLOGY:
 STRANDEDNESS:
 REFERENCE/DOCKET NUMBER:
 COUNTRY: U.S.A.
 TYPE: amino acid
STRANDEDNESS: si
 REGISTRATION NUMBER:
 TELEPHONE:
 ADDRESSEE:
 ropology:
 TELEPHONE:
 ENGTH:
 10 QOFIQSVLNNGATRO 24
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 Sheets,
 QEFLOSSIR--ALRO 14
 New York
 180 Varick Street
 15 amino acids
 212-645-2054
 PE: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
 Fowlkes, Dana'M.
 Conservative
 linear
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 212-645-1405
 212-645-1405
 ImClone Systems Incorporated
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 Score 28;
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US-08-346.
US-08-346.
Sequence 59, Ap.
Fatent No. 5670483
FATERAL INFORMATION:
APPLICANT: Zhang, Shuguang
APPLICANT: Lockehin, Curtie
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 RESULT 25
 MOLECULE TYPE: peptide
 Matches
 Query Match
Best Local S
 Matches
 CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,326
FILING DATE: 28 DECEMBER 1992
ATTORNEY/AGENT INFORMATION:
NAME: Brook, David E.
REGISTRATION NUMBER: 22,592
REFERENCE/DOCKET NUMBER: MIT-6008
TELECOMMUNICATION INFORMATION:
 GENERAL INFORMATION:
APPLICANT: Zhang, Shuguang
APPLICANT: Lockshin, Curtis
 TELEFAX: (617) 861-9540 INFORMATION FOR SEQ ID NO:
 SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
TYPE: amino acid
TOPOLOGY: linear
 ZIP: 02173-4799

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
 NUMBER OF SEQUENCES: 6. CORRESPONDENCE ADDRESS:
 APPLICANT: Rich, Alexander APPLICANT: Holmes, Todd TITLE OF INVENTION: STABLE TITLE OF INVENTION: THEREFORE TITLE OF INVENTION: THEREFORE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THEREFORE THE TITLE OF INVENTION: THE TITLE OF I
 Local Similarity 50.0%;
1es 4; Conservative
 APPLICATION NUMBER: FILING DATE:
 STREET: Two Mil:
CITY: Lexington
STATE: Massachu
 Local Similarity
 TELEPHONE:
 COUNTRY:
 ADDRESSEE:
 NO.
 10 QQFIQSVLNNGATRQ 24
 5 NYKYROOF 12
 2 QEFLOSSLR--ALRO 14
 NYQYNYQY 9
 Massachusetts
 Application US/08346849
 Application US/08346849
 E: HAMILTON, BROOK, SMITH & REYNOLDS, P.C Two Militia Drive
 U.S.A.
 Conservative
 (617) 861-6240
 22.6%;
53.3%;
 STABLE MACROSCOPIC MEMBRANES FORMED BY SELF-ASSEMBLY OF AMPHIPHILIC PEPTIDES AND USES
 THEREFOR
 US/08/346,849
 Score 28; DB 4;
Pred. No. 4e+02;
2; Mismatches
 Score 28; DB 1;
Pred. No. 4.4e+02;
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 Length 16;
 Length 15;
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Search completed: January 26, Job time: 23.7184 secs

2006, 08:07:00

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 TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 861-6240
TELEFAX: (617) 861-9540
INFORMATION FOR SEQ ID NO: 59:
SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
 APPLICATION NUMBER: US/08/346,84
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,326
FILING DATE: 28 DECEMBER 1992
ATTORNEY/AGENT INFORMATION:
NAME: Brook, David E
REGISTRATION NUMBER: 22,592
REGISTRATION NUMBER: 22,592
 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
 APPLICANT: Holmes, Todd
TITLE OF INVENTION: STABLE MACROSCOPIC MEMBRANES FORMED BY
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TITLE OF INVENTION: THEREFOR
 COMPUTER READABLE FORM:
 STREET: Two Mil.
 Local Similarity
 LENGTH: 16 amino TYPE: amino acid TOPOLOGY: linear
 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
 STATE: Massachusetts
COUNTRY: U.S.A.
ZIP: 02173-4799
 REFERENCE/DOCKET NUMBER:
 ADDRESSEE:
4 NYQYNYQY 11
 NYKYROOF 12
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 Conservative
 HAMILTON, BROOK, SMITH & REYNOLDS, P.C
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 MIT-6008
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US-10-212-628-250
US-09-935-430-132
US-10-209-034-0-137-132
US-10-90-137-132
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ALIGNMENTS

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US-10-212-628-250
 ; LOCATION: 4
; OTHER INFORMATION: Xaa = Modified Cysteine
US-10-057-789-250
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 CURRENT APPLICATION NUMBER: US/10/212,628
CURRENT FILING DATE: 2002-08-01
PRIOR APPLICATION NUMBER: US 60/264,576
PRIOR FILING DATE: 2001-01-26
PRIOR APPLICATION NUMBER: US 60/305,232
PRIOR FILING DATE: 2001-07-13
PRIOR APPLICATION NUMBER: US 10/057,789
PRIOR FILING DATE: 2002-01-25
NUMBER OF SEQ ID NOS: 311
 SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 250
LENGTH: 17
 Sequence 250, Applic Publication No. US20 GENERAL INFORMATION:
 SOFTWARE: FASTSEQ for Windows Version 4.0 SEQ ID NO 250
 Matches
 Query Match
Best Local
 GENERAL INFORMATION:
 APPLICANT: Paul Haynes
APPLICANT: Jing Wei
APPLICANT: John Yates
APPLICANT: Nancy Andor
 TITLE OF INVENTION: DIFFERENTIAL LABELING FOR QUANTITATIVE TITLE OF INVENTION: ANALYSIS OF COMPLEX PROTEIN MIXTURES FILE REFERENCE: NADII.022A
CURRENT APPLICATION NUMBER: US/10/057,789
CURRENT FILING DATE: 2002-06-28
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PRIOR PELING DATE: 2001-01-26
PRIOR PILING DATE: 2001-01-3
PRIOR PILING DATE: 2001-07-13
NUMBER OF SEQ ID NOS: 311
 APPLICANT: Paul Haynes
APPLICANT: Jing Wei
APPLICANT: John Yates
APPLICANT: Nancy Andon
 APPLICANT: Nancy Andon
TITLE OF INVENTION: DIFFERENTIAL LABELING FOR QUANTITATIVE
TITLE OF INVENTION: ANALYSIS OF COMPLEX PROTEIN MIXTURES
FILE REFERENCE: NADII.022CP1
 LENGTH: 17
TYPE: PRT
 ORGANISM: Saccharomyces FEATURE: NAME/KEY: VARIANT
FEATURE:
NAME/KEY: VARIANT
 TYPE: PRT
 ORGANISM: Saccharomyces cerevisiae
 8
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 Similarity 7; Conserv
 YROOFIOSVLNNGATR 23
 Application US/10057789
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 Application US/10212628
 Conservative
 US20030087329A1
 26.6%;
43.8%;
 Score 33; DB 4; Length 17; Pred. No. 3.6e+02;
 Mismatches
 Indels
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 Gaps
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 Matches
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APPLICANT: AFAR, DANIEL
APPLICANT: LEVIN, ELANA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, AYA
APPLICANT: JAKOBOVITZ, AYA
APPLICANT: JAKOBOVITZ, AYA
ITILE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158PID7
ITILE OF INVENTION: OTHER CANCERS
ITILE OF INVENTION: OTHER CANCERS
ITILE OF INVENTION UMBER: US/09/935,430
CURRENT APPLICATION NUMBER: 001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 700
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 132
 ; OTHER INFORMATION: Xaa = Modified Cysteine US-10-212-628-250
 OTHER INFORMATION: Description of Artificial Sequence: Peptide US-09-935-430-132
 US-10-277-292-132
 US-09-935-430-132
 Query Match
Best Local Similarity
Matches 7; Conserv
 Sequence 132, Application US/09935430 Publication No. US20030017466A1
 GENERAL INFORMATION:
 Sequence 132, Application US/10277292
Publication No. US20030199470A1
 GENERAL INFORMATION
 Query Match
Best Local
APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, AYA
APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: UUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
FILE REFERENCE: 51158-20050.00
CURRENT APPLICATION NUMBER: US/10/277,292
CURRENT FILING DATE: 2002-10-21
PRIOR APPLICATION NUMBER: US/09/935,430
PRIOR FILING DATE: 2001-08-22
 APPLICANT: FARIS, MARY
APPLICANT: HUBERT, RENE
APPLICANT: RAITANO, ARTHUR
 APPLICANT:
 APPLICANT: FARIS, MARY
APPLICANT: HUBERT, REN
APPLICANT: RAITANO, AI
 TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
 LENGTH:
 15 SVLNNGAT 22
 6; Conserv
 SLLNNGLT 8
 YRQQFIQSVLNNGATR 23
 YTXOFVDMVLPNTALK 17
 HUBERT, RENE
RAITANO, ARTHUR
 AFAR, DANIEL
LEVIN, ELANA
CHALLITA-EID, PIA
 Conservative
 Conservative
 26.6%;
 25.0%;
75.0%;
 2
 Score 33; DB 4;
Pred. No. 3.6e+02;
 Score 31; DB 3;
Pred. No. 1.7e+06;
 Mismatches
 Mismatches
 7; Indels
 Length 9;
 Length 17;
 Indels
 0
 0
 Gaps
 Gaps
 0
 0
```

PRIOR APPLICATION NUMBER: 60/227,098 PRIOR FILING DATE: 2000-08-22

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B
 US-10-990-137-132
 RESULT 6
 ; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
US-10-280-340-132
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 RESULT
 US-10-280-340-132
 ; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
US-10-277-292-132
 Query Match
Best Local Similarity 75.0
Matches 6; Conservative
 Sequence 132, Application US/10990137 Publication No. US20050227253A1
 PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 700
SOFTWARE: PALENTIN Ver. 2.1
SEQ ID NO 132
 GENERAL INFORMATION:
 SEQ ID NO 132
 Sequence 132, Appropriate Publication No.
 Matches
 Query Match
Best Local
 APPLICANT: AFAR, DANIEL
APPLICANT: LEVIN, ELANA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: UUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: OTHER CANCERS
TITLE OF INVENTION: OTHER CANCERS
TITLE OF INVENTION UMBER: US/10/280,340
CURRENT APPLICATION NUMBER: US/09/935,430
PRIOR APPLICATION NUMBER: 00/227,098
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 2000-08-22
 PRIOR FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 700 '
SOFTWARE: Patentin Ver. 2.1
 APPLICANT: FARIS, MARY
APPLICANT: HUBERT, RENE
APPLICANT: RAITANO, ARTHUR
 PRIOR APPLICATION NUMBER: 60/282,739 PRIOR FILING DATE: 2001-04-10
 LENGTH: 9
TYPE: PRT
 ORGANISM: Artificial Sequence FEATURE:
 FEATURE:
 ORGANISM: Artificial Sequence
 INFORMATION:
 15 SVLNNGAT 22
 15 SVLNNGAT 22
 1 SLLNNGLT 8
 1 SLLNNGLT 8
 Similarity 6; Conserv
HUBERT, RENE
 Application US/10280340 o. US20030207835A1
 Conservative
 25.0%;
 25.0%;
75.0%;
 Score 31; DB 4; Le
Pred. No. 1.7e+06;
1; Mismatches 1;
 Score 31; DB 4; 1
Pred. No. 1.7e+06;
1; Mismatches 1
 Length 9;
 Length 9;
 Indels
 Indels
 0,
 0,
 Gaps
 Gaps
 0
 0
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15 SVLNNGAT 22

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, OTHER INFORMATION: Description of Artificial Sequence: Peptide motif US-09-935-430-157
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 Ś
 RESULT 7
US-09-935-430-157
 US-10-990-137-132
Query Match
Best Local Similarity
Matches 6; Conserv
 PRIOR APPLICATION NUMBER: 60/227,098
PRIOR ETILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 700
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 157
 GENERAL INFORMATION:
 Best Local Similarity 75.0%; Matches 6; Conservative
 Sequence 157, A Publication No.
 SEQ ID NO 132
 APPLICANT: AFAR, DANIEL
APPLICANT: LEVIN, ELANA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOUTCZ, AYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
FILE REFERENCE: 51158-20050.00
CURRENT APPLICATION NUMBER: US/09/935,430
CURRENT FILING DATE: 2001-08-22
 PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
NUMBER OF SEQ ID NOS: 700
SOFTWARE: Patentin Ver. 2.1
 FILE REFERENCE: 511582005003
CURRENT APPLICATION NUMBER: US/10/990,137
CURRENT FILING DATE: 2004-11-15
 APPLICANT:
 PRIOR APPLICATION NUMBER: 09/935,430 PRIOR FILING DATE: 2001-08-22
 APPLICANT: JAKOBOVITZ, ÄYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER ANT
TITLE OF INVENTION: OTHER CANCERS
 APPLICANT:
 APPLICANT:
 APPLICANT:
 TYPE: PRT ORGANISM: Artificial Sequence
 OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
 ORGANISM: Artificial Sequence FEATURE:
 TYPE: PRT
 LENGTH: 10
 ENGTH:
 15 SVLNNGAT 22
 _
 |:|||| |
 RAITANO, ARTHUR
 HUBERT, RENE
 CHALLITA-EID,
 RAITANO, ARTHUR
 LEVIN, ELANA
 AFAR, DANIEL
 Application US/09935430 b. US20030017466A1
 Conservative
 MARY
 25.0%;
 PIA
 Score 31; L
Pred. No. 4.

 Mismatches

 Score 31; DB 5;
Pred. No. 1.7e+06;
 Mismatches
 DB 3; 1
4.2e+02;
 1; Indels
 Length 9;
 Length 10;
 1; Indels
 DETECTION OF BLADDER AND
 0,
 0
 Gaps
 Gaps
 0;
 0
```

뫄

```
AFAR, DANIEL
APPLICANT: LEVIN, ELANA
APPLICANT: CHALLTA-EID, PIA
APPLICANT: JAKOBOVITZ, AYA
ITITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158PID7
ITITLE OF INVENTION: OFFER CANCERS
FILTE OF INVENTION: OFFER CANCERS
FILTE OF INVENTION: OFFER CANCERS
FILTE REFERENCE: 51158-20050.00
CURRENT FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR PILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2001-08-22
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
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PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/282,739
PRIOR PELICATION NUMBER: 60/2
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 S
 US-10-277-292-157
 US-09-935-430-621
 Publication No. US20
GENERAL INFORMATION:
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 157
LENGTH: 10
 APPLICANT:
 Matches
 Best Local Similarity
 Query Match
 APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, AYA
APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
FILE REFERENCE: 51158-20050.00
CURRENT APPLICATION NUMBER: US/10/277,292
CURRENT FILING DATE: 2002-10-21
CURRENT FILING DATE: 2002-10-21
CURRENT FILING DATE: 2002-10-21
 PRIOR APPLICATION NUMBER: US/09/935,430
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 700
 APPLICANT: FARIS, MARY APPLICANT: HUBERT, REI
 APPLICANT:
 OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
 15
 N
 HUBERT, RENE
RAITANO, ARTHUR
AFAR, DANIEL
 SLLNNGLT 9
 SVLNNGAT 22
 LEVIN, ELANA
 Application US/10277292
 Conservative
 US20030199470A1
 25.0%;
75.0%;
 1; Mismatches
 Score 31; DB 3;
Pred. No. 4.2e+02;
 DB 3; Length 10;
 0;
 Gaps
 0
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RESULT 11

US-10-280-340-157

US-10-280-340-157

Sequence 157, Application US/10280340

Publication No. US20030207835A1

GENERAL INFORMATION:
APPLICANT: FARIS, MARY
APPLICANT: HUBERT, RENE
APPLICANT: RAITANO, ARTHUR
APPLICANT: AFAR, DANIEL
APPLICANT: LEVIN, ELANA
APPLICANT: LEVIN, ELANA
APPLICANT: LEVIN, ELANA
APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
 APPLICANT: LEVIN, ELANA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: CHALOBOVITZ, AYA
APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CORRESS
FILE REFERENCE: 51158-2005-0.00
CURRENT APPLICATION NUMBER: US/10/277,292
CURRENT FILING DATE: 2002-10-21
PRIOR APPLICATION NUMBER: US/09/935,430
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2001-08-22
PRIOR FILING DATE: 2001-04-10
NUMBER: OF SEQ ID NOS: 700
CONTENTED PRIOR FILING DATE: 2001-04-10
 RESULT 10
US-10-277-292-621
 밁
 OTHER INFORMATION: Description of Artificial Sequence: Peptide motif US-10-277-292-157
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 US-10-277-292-621
 SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 621
LENGTH: 10
 GENERAL
 Sequence 621, A Publication No.
 Matches
 Query Match
Best Local Similarity
 Matches
 Query Match
 APPLICANT: FARIS, APPLICANT: HUBER
 APPLICANT:
 TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
 OTHER INFORMATION: Description of Artificial Sequence: Peptide
 FEATURE:
 ORGANISM: Artificial Sequence
 TYPE: PRT
 Local Similarity
 INFORMATION
 15 SVLNNGAT 22
 15 SVLNNGAT 22
 1 SLLNNGLT 8
 2 SLLNNGLT 9
 <u>..</u>
 6
 AFAR, DANIEL
 HUBERT, RENE
RAITANO, ARTHUR
 Application US/10277292
 Conservative
 Conservative
 US20030199470A1
 MARY
 25.0%;
 25.0%;
75.0%;
 Score 31; DB 4;
Pred. No. 4.2e+02;
 Score 31; DB 4;
Pred. No. 4.2e+02;
 Mismatches
 Mismatches
 Length 10;
 Length 10
 Indels
 <u>.</u>
 0
 Gaps
 Gaps
 0
 0
```

FILE REFERENCE: 51158-20050.00

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 S
 RESULT 12
US-10-280-340-621
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 ક
 US-10-280-340-621
 ; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
US-10-280-340-157
 SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 621
LENGTH: 10
 Query Match
Best Local :
 Matches
 Query Match
 Matches
 SOFTWARE: Pa
SEQ ID NO 157
 Publication No.
 PRIOR FILING DATE: 2001-04-10 NUMBER OF SEQ ID NOS: 700
 PRIOR APPLICATION NUMBER: US/09/935,430
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
 FILE REFERENCE: 51158-20050.00
CURRENT APPLICATION NUMBER: US/10/280,340
CURRENT FILING DATE: 2002-10-25
 APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
 PRIOR APPLICATION NUMBER: US/09/935,430
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: 60/282,739
PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
 CURRENT APPLICATION NUMBER: US/10/280,340 CURRENT FILING DATE: 2002-10-25
 APPLICANT:
 NUMBER OF SEQ ID NOS: 700
 OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
 FEATURE:
 ORGANISM: Artificial Sequence
 TYPE: PRT
 ORGANISM: Artificial Sequence
 ENGTH: 10
 Local Similarity
 Local Similarity
 INFORMATION:
 15 SVLNNGAT 22
 15 SVLNNGAT 22
 N
 PatentIn Ver. 2.1
SLLNNGLT 9
 AFAR, DANIEL
LEVIN, ELANA
CHALLITA-EID, PIA
 RAITANO, ARTHUR
 HUBERT, RENE
 Application US/10280340 to. US20030207835A1
 Conservative
 Conservative
 MARY
 25.0%;
75.0%;
 25.0%;
75.0%;
 Score 31; DB 4;
Pred. No. 4.2e+02;
 Score 31; DB 4;
Pred. No. 4.2e+02;
 Mismatches
 Mismatches
 1; Indels
 Length 10;
 1; Indels
 Length 10;
 0
 0,
 Gaps
 Gaps
 0,
```

RESULT 13 US-10-990-137-157

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CURRENT APPLICATION NUMBER: US/10/990,137
CURRENT FILING DATE: 2004-11-15
PRIOR APPLICATION NUMBER: 09/935,430
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
NUMBER OF SEQ ID NOS: 700
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 621
 CURRENT APPLICATION NUMBER: US/10/990,137
CURRENT FILING DATE: 2004-11-15
PRIOR APPLICATION NUMBER: 09/935,430
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/282,739
PRIOR FILING DATE: 2001-04-10
PRIOR FILING DATE: 2001-04-10
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR APPLICATION NUMBER: 60/227,098
PRIOR FILING DATE: 2000-08-22
NUMBER OF SEQ ID NOS: 700
SOFTWARE: PACENTIN Ver. 2.1
SEQ ID NO 157
 US-10-990-137-621
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 ; FEATURE: ; OTHER INFORMATION: Description of Artificial Sequence: Peptide US-10-990-137-157
 GENERAL INFORMATION:
 Matches
 Query Match
Best Local
 GENERAL INFORMATION
 Sequence 157, Application US/10990137 Publication No. US20050227253A1
 APPLICANT: AFAR, DANIEL
APPLICANT: LEVIN, ELANA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, AYA
APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: UUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 158P1D7
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF BLADDER AND
TITLE OF INVENTION: OTHER CANCERS
FILE REFERENCE: 511582005003
 APPLICANT:
 APPLICANT:
 APPLICANT: LEVIN, ELANA
APPLICANT: CHALLITA-EID, PIA
APPLICANT: JAKOBOVITZ, NAYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION
TITLE OF INVENTION: OTHER CANCERS
 APPLICANT: FARIS, MARY
 APPLICANT:
 LENGTH: 10
TYPE: PRT
 APPLICANT:
 APPLICANT: FARIS, MARY
 FILE REFERENCE: 511582005003
FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
 ORGANISM: Artificial Sequence
 TYPE: PRT ORGANISM: Artificial Sequence
 ENGTH: 10
 15 SVLNNGAT 22
 1 SLLNNGLT 8
 Similarity
6; Conserv
 HUBERT, RENE
RAITANO, ARTHUR
 AFAR, DANIEL
 HUBERT, RENE
RAITANO, ARTHUR
 Application US/10990137 o. US20050227253A1
 Conservative
 25.0%;
75.0%;
 Score 31; DB 5;
Pred. No. 4.2e+02;
1; Mismatches 1
 Length 10;
 Indels
 NAMED 158P1D7
OF BLADDER AND
 0
 motif
 Gaps
 0
```

X

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APPLICANT: Spacciapoli, Peter
APPLICANT: Rothstein, David M.
APPLICANT: Friden, Phillip M.
TITLE OF INVENTION: METHOD FOR TREATING CYSTIC FIBROSIS
FILE REFERENCE: 50032/007001
CURRENT APPLICATION NUMBER: US/09/226,666A
CURRENT FILING DATE: 1999-01-08
NUMBER OF SEQ ID NOS: 18
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14
LENGTH: 12
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
 ; FEATURE: VARIANT; NAME/KEY: VARIANT; LOCATION: (7)...(0); OTHER INFORMATION: CSNP translation US-10-813-638-1312
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 á
 RESULT 15
US-09-226-666-14
 밁
 S
 US-10-990-137-621
 US-10-813-638-1312
 RESULT 16
 , OTHER INFORMATION: Derived from Homo sapiens US-09-226-666-14
 Sequence 1312, Application US/10813638

Publication No. US20040235026A1

GENERAL INFORMATION:
APPLICANT: Shinkets, Richard A.
APPLICANT: Leach, Martin D.
TITLE OF INVENTION: NUCLEIC ACIDS CONTAINING SINGLE NUCLEIC ACID POLYMORPHISMS AND ME
TITLE OF INVENTION: USE THEREOF
FILE REFERENCE: 15966-599
CURRENT APPLICATION NUMBER: US/10/813,638
CURRENT FILING DATE: 2004-03-29
PRIOR APPLICATION NUMBER: 60/163,783
PRIOR APPLICATION NUMBER: 60/163,783
PRIOR FILING DATE: 1999-11-24
NUMBER OF SEQ ID NOS: 1468
SOFTWARE: CuraGen Patent Formatter Version 0.9

SEQ ID NO 1312
 Sequence 14, Application US/09226666A Patent No. US20020077282A1 GENERAL INFORMATION:
 Matches
 Best
 Query Match
 Query Match
Best Local (
 Matches
 Query Match
 Matches
 LENGTH: 14
TYPE: PRT
ORGANISM: Homo sapiens
 Local Similarity 60.0
 Local Similarity les 6; Conserv
 15 SVLNNGAT 22
 ω
 4 QNYKYRQQF 12
 2 SLLNNGLT 9
 1 DMAQNYKYRQ 10
 Similarity 55.6 5; Conservative
 OHHGYKOOF 11
 Conservative
 25.0%;
 25.0%;
55.6%;
 25.0%;
75.0%;
 Score 31;
Pred. No.
 Score 31; DB 5;
Pred. No. 6.1e+02;
0; Mismatches 4
 Score 31; DB 3; Le
Pred. No. 5.1e+02;
3; Mismatches 1;
 Mismatches
 4.2e+02;
 DB 5;
 Length 12;
 1; Indels
 Length 10;
 Length 14;
 Indels
 Indels
 0
 0,
 0,
 Gaps
 Gaps
 Gaps
 0;
 0
 0
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 RESULT 17
US-09-073-009-49
 US-09-023-588-49
 US-09-073-009-49
 Sequence 49, Application US/09023588 Patent No. US20020081579A1
 Sequence 49, Application US/09073009 Patent No. US20010012888A1
 Matches
 Best Local Similarity
Matches 5; Conserv
 Query Match
 GENERAL INFORMATION: APPLICANT: Skeiky
 TELEFAX: 20
INFORMATION FOR
 GENERAL INFORMATION
 ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21(
TELECOMMUNICATION INFORMATION:
 APPLICANT: Dillon, Davin C.
APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Campos-Neto, Antonio
TITLE OF INVENTION: COMPOUNDS AN
NUMBER OF SEQUENCES: 144
 APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Dillon, Davin C.
APPLICANT: Dillon, Davin C.
APPLICANT: Alderson, Mark R.
TITLE OF INVENTION: METHOD FOR THE ISOLATION OF NOVEL ANTIGENS
CORRESPONDENCES: 69
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
 MOLECULE TYPE:
ORIGINAL SOURCE:
 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/073,009
FILING DATE: 05-MAY-1998
 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
 SEQUENCE CHARACTERISTICS
 CORRESPONDENCE ADDRESS:
 APPLICANT:
 STREET: occurry: Seattle
 LENGTH: 16 amino acids
TYPE: amino acid
STRANDEDNESS: single
 STREET: 6300 C
 TOPOLOGY:
 CLASSIFICATION:
 COUNTRY:
 ORGANISM:
 TELEPHONE:
 ADDRESSEE:
 98104
 NYKYROQFIQSVLNN 19
 DRTANVKYRQ 13
 NYEQQEQASQQILSS 16
 Washington
Washington
 E: SEED and BERRY 6300 Coumbia Center,
 206-682-6031
OR SEQ ID NO:
 Alderson, Mark
 Conservative
 Mycobacterium tuberculosis
 linear
 206-622-4900
 peptide
 25.0%;
 49:
 210121.441C1
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 Score 31; DB 3;
Pred. No. 7e+02;
 AND DIAGNOSIS
 Mismatches
 701 Fifth Ave
 Length 16;
 0;
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 TUBERCULOSIS AND
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COUNTRY:

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CURRENT APPLICATION NUMBER: US/09/793,306
CURRENT FILING DATE: 2001-02-26
PRIOR APPLICATION NUMBER: US 60/185,037
PRIOR FILING DATE: 2000-02-25
PRIOR APPLICATION NUMBER: US 60/223,828
PRIOR FILING DATE: 2000-08-08
VNUMBER OF SEQ ID NOS: 164
SOFTWARE: PALENTIN Ver. 2.1
SEQ ID NO 49
 Query Match
Best Local Similarity
Thes 5; Conserve
 US-09-793-306-49
 US-09-023-588-49
 Sequence 49, App
Sequence 49, App
Sequence 49, App
Matches
 Query Match
 GENERAL INFORMATION:
 APPLICANT:
 TITLE OF INVENTION: Compounds and Methods for Diagnosis and Immunotherapy TITLE OF INVENTION: of Tuberculosis FILE REFERENCE: 014058-008740US
 APPLICANT: Campos-Neto, Antonio
APPLICANT: Skeiky, Yasir
APPLICANT: Ovendale, Pamela
 APPLICANT:
 TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: .
SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
TYPE: amino acid
 TYPE: PRT
ORGANISM: Artificial Sequence
 FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:peptide
OTHER INFORMATION: ORF-1-16
 LENGTH:
 REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21/
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC comparible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
 MOLECULE TYPE:
ORIGINAL SOURCE:
ORGANISM: Myc
 ATTORNEY/AGENT INFORMATION:
Local Similarity
nes 5; Conserv
 STRANDEDNESS:
 APPLICATION NUMBER: US/0 FILING DATE: 14-FEB-1998
 TOPOLOGY:
 CLASSIFICATION:
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 2 NYEQQEQASQOILSS 16
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 Lodes, Michael
Corixa Corporation
 Jen, Shyian
 Application US/09793306
 Conservative
 Conservative
 Mycobacterium tuberculosis
 linear
 20098200A1
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 single
 25.0%;
 25.0%; Score 31; DB 3; 33.3%; Pred. No. 7e+02;
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US-10-251-526-30

; Sequence 30, Application US/10251526

; Publication No. US20030144486A1

; GENERAL INFORMATION:
 RESULT 20
US-10-936-237-11
 RESULT 22
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 RESULT 21
US-10-247-946-30
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 US-10-936-237-11
 Best Loc
Matches
 SOPTWARE: PatentIn version 3.2
SEQ ID NO 11
LENGTH: 10
TYPE: PRT
ORGANISM: SARS Coronavirus
 SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 30
LENGTH: 12
 Sequence 30, Application US/10247946 Publication No. US20030144485A1 GENERAL INFORMATION:
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Matches 5; Conserv
 GENERAL INFORMATION:
 Sequence 11, Application US/10936237
Publication No. US20050106563A1
 Query Match
 APPLICANT: Rodman, Toby C.
TITLE OF INVENTION: Monoclonal Human Natural
FILE REFERENCE: 4436/1C074-US1
CURRENT APPLICATION NUMBER: US/10/251,526
CURRENT FILING DATE: 2002-09-20
 FILE REFERENCE: 4436/1C074-US1
CURRENT APPLICATION NUMBER: US/10/247,946
CURRENT FILING DATE: 2002-09-20
PRIOR APPLICATION NUMBER: US/09/462,118
PRIOR FILING DATE: 1999-12-18
 APPLICANT: HUANG, JEN-PIN
APPLICANT: CHEN, LEE-HSUAN
TITLE OF INVENTION: EPITOPE PROFILE OF SARS CORONAVIRUS
FILE REFERENCE: 09468.0004
CURRENT FAPLICATION NUMBER: US/10/936,237
CURRENT FILING DATE: 2004-09-08
NUMBER OF SEQ ID NOS: 195
 APPLICANT: Rodman, Toby C.
TITLE OF INVENTION: Monoclonal Human Natural Antibodies
PRIOR APPLICATION NUMBER:
 NUMBER OF SEQ ID NOS:
 TYPE: PRT
 Local Similarity tes 5; Conserv
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 2 NYEQQEQASQQILSS 16
 5 NYKYROQFIQSVLNN 19
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APPLICANT: BAKER, Matthew
APPLICANT: CARTER, Francis J.
APPLICANT: CARTER, Graham
TITLE OF INVENTION: METHOD FOR MAPPING AND ELIMINATING
TITLE OF INVENTION: T-CELL EPITOPES
FILE REFERENCE: MER-135
CURRENT APPLICATION NUMBER: US/11/009,460
CURRENT FILING DATE: 2004-12-10
PRIOR APPLICATION NUMBER: PCT/EP03/06110
PRIOR APPLICATION NUMBER: EP02012919.3
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PRIOR FILING DATE: 2002-06-11
NUMBER OF SEQ ID NOS: 127
SOFTWARE: PASELSEQ for Windows Version 4.0
SEQ ID NO 104
LENGTH: 15
 GENERAL INFORMATION:

APPLICANT: K"ster, Hubert
APPLICANT: Siddiqi, Suhaib
APPLICANT: Siddiqi, Suhaib
APPLICANT: Little, Daniel
TITLE OF INVENTION: Capture Compounds, Collections
TITLE OF INVENTION: Compositions
TITLE OF INVENTION: Compositions
FILE REFERENCE: 24743-2305
CURRENT APPLICATION NUMBER: US/10/197,954
CURRENT APPLICATION NUMBER: 60/306,019
PRIOR APPLICATION NUMBER: 60/314,123
PRIOR FILING DATE: 2001-07-16
PRIOR APPLICATION NUMBER: 60/314,123
PRIOR FILING DATE: 2001-08-21
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 RESULT 23
US-11-009-460-104
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 RESULT 24
US-10-197-954-35
 US-11-009-460-104
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US-10-251-526-30
 PRIOR FILING DATE: 1999-12-18
NUMBER OF SEQ ID NOS: 36
SOFTWARE: FASTSEQ for Windows Version 3.0
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 Sequence 35, Application US/10197954
Publication No. US20030119021A1
 Matches
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 GENERAL INFORMATION:
 Sequence 104, A Publication No.
 FEATURE: OTHER INFORMATION: Potential T-cell Epitopes
 TYPE: PRT
 ORGANISM: Artificial Sequence
 TYPE: PRT
 Local Similarity 43.8%; res 7; Conservarium
APPLICATION NUMBER: 60/363,433
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 YROOFIOSVLNNGATR 23
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 Application US/11009460 DS US20050181459A1
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US-10-197-954-35
Search completed: January Job time: 79 secs
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 ; ORGANISM: Homo Sapien US-10-760-085-35
 Ş
 TITLE OF INVENTION: Capture Compounds, Collections Thereof
TITLE OF INVENTION: And Methods For Analyzing The Proteome And Complex
TITLE OF INVENTION: Compositions
FILE REFERENCE: 24743-2309
CURRENT APPLICATION NUMBER: US/10/760,085
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PRIOR FILING DATE: 2003-01-16
NUMBER OF SEQ ID NOS: 149
SOFTWARE: FastSEQ for Windows Version 4.0
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TYPE: PRT
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 Sequence 35, Application US/10760085
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 APPLICANT: Hubert K"ster
APPLICANT: Daniel Paul Little
 APPLICANT:
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 24.2%;
Local Similarity 41.7%;
hes 5; Conservarium
 AQNYKYRQQFIQ 14
 AASHIYQNQFVQ 18
 AQNYKYRQQFIQ 14
 AASHIYQNQFVQ 18
 Ping Yip
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Subramaniam Marappan
Chester Frederick Hassman
 Suhaib Mahmood Siddiqi
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 24.2%;
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Maximum Match 100%
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116, App
121, App
122, App
123, App
124, App
125, App
126, App
127, App
128, App
129, App
120, App
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121, App
122, App
123, App
124, App
125, App
127, App
128, App
129, App
120, App
12
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 RESULT 1
US-11-033-039-1123
 US-10-511-559-255; Sequence 255, Ag; Publication No.
 US-11-033-039-1123
 CURRENT APPLICATION NUMBER: US/10/511,559
CURRENT FILING DATE: 2004-10-15
PRIOR APPLICATION NUMBER: PCT/EP03/04063
PRIOR FILING DATE: 2003-04-17
PRIOR APPLICATION NUMBER: EP 02008712.8
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR FILING DATE: 2003-03-24
NUMBER OF SEQ ID NOS: 1147
NUMBER OF SEQ ID NOS: 1147
 CURRENT APPLICATION NUMBER: US/11/033,039
CURRENT FILING DATE: 2005-01-11
PRIOR APPLICATION NUMBER: 10/245,871
PRIOR FILING DATE: 2002-09-17
PRIOR APPLICATION NUMBER: 10/197,000
PRIOR FILING DATE: 2002-07-17
PRIOR APPLICATION NUMBER: 09/396,813
PRIOR APPLICATION NUMBER: 09/396,813
PRIOR FILING DATE: 1999-09-14
 Sequence 1123, Application US/11033039 Publication No. US20060002947A1
 SEQ ID NO 1123
 GENERAL INFORMATION
 Matches
 GENERAL INFORMATION:
 100
 NUMBER OF SEQ ID NOS: 1147
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 255
 APPLICANT: JONES APPLICANT: BAKEI APPLICANT: CARR
 APPLICANT: HUMPHREYS, ROBERT
APPLICANT: XU, MINZHEN
TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REFERENCE: REH-2017US01
 TITLE OF INVENTION: MODIFIED FACTOR VIII FILE REFERENCE: MER-133
 SOFTWARE: PatentIn version 3.3
 NUMBER OF SEQ ID NOS: 1452
 LENGTH: 13
TYPE: PRT
 NAME/KEY: MOD_RES
LOCATION: (5)..(5)
OTHER INFORMATION:
ORGANISM: Artificial Sequence FEATURE:
 OTHER INFORMATION: OTHER INFORMATION:
 TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
 FEATURE:
 ENGTH:
 Local
 2 MAQNYKYR 9
 3 MKXNYKYR 10
 26.6%;
Similarity 75.0%;
6; Conservation
 BAKER, Matthew CARR, Francis,
 Application US/10511559 o. US20050256304A1
 Ava
 Description of Artificial Sequence: Synthetic hybrid peptide
 20
 0; Mismatches
 US-11-094-142-34
US-11-166-412-154
 Score 33; DE
Pred. No. 17;
 ALIGNMENTS
 7; Length 19;
 2
 Indels
 Sequence 34, Appl
Sequence 154, App
 0,
 Gaps
 0,
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RESULT 3
US-10-511-559-75
US-10-611-559-75
Sequence 75, Application US/10511559
Publication No. US20050256304A1
 Query Match
Best Local Similarity
'herhes 7; Conserva
 , OTHER INFORMATION: Potential Epitope of human Factor VIII US-10-511-559-255
 ; OTHER INFORMATION: Epitope of human Factor VIII US-10-511-559-75
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-503-575-110
 US-10-503-575-110
 Sequence 110, Applic Publication No. US20 GENERAL INFORMATION:
 SOFTWARE: PatentIn
SEQ ID NO 110
 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 75
 Matches
 Query Match
Best Local
 APPLICANT: KONING, Frits
ITITE OF INVENTION: NOVEL EDITOPES FOR CELIAC DISEASE AND AUTOIMMUNE DISEASES, METHOD
TITLE OF INVENTION: DETECTING THOSE AND NOVEL NON-ANTIGENIC FOOD COMPOUNDS
FILE REFERENCE: 2799/72843-PCT-US
CURRENT FALLORATION NUMBER: US/10/503,575
CURRENT FILLING DATE: 2004-08-04
PRIOR APPLICATION NUMBER: PCT/NL03/00077
PRIOR FILLING DATE: 2003-02-04
PRIOR APPLICATION NUMBER: EP 02075456.0
PRIOR FILLING DATE: 2002-02-04
PRIOR FILLING DATE: 2002-02-04
PRIOR FILLING DATE: 2002-02-04
PRIOR FILLING DATE: 2002-02-04
PRIOR FILLING DATE: 2002-03-03-04
PRIOR FILLING DATE: 2002-03-04
 CURRENT APPLICATION NUMBER: US/10/511,559
CURRENT FILING DATE: 2004-10-15
PRIOR APPLICATION NUMBER: PCT/EP03/04063
PRIOR FILING DATE: 2003-04-17
PRIOR APPLICATION NUMBER: EP 02008712.8
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR APPLICATION NUMBER: EP 03006554.4
 APPLICANT: Drijfhout, Jan Wouter
APPLICANT: van Veelen, Petrus A
APPLICANT: Koning, Frits
 PRIOR FILING DATE:
 APPLICANT: JONES, Tim
APPLICANT: BAKER, Matthew
APPLICANT: CARR, Francis,
 NUMBER OF SEQ ID NOS:
 TITLE OF INVENTION: MODIFIED FACTOR VIII FILE REFERENCE: MER-133
 TYPE: PRT
ORGANISM: Artificial Sequence
 FEATURE:
 LENGTH: 19
 LENGTH: 15
 Local Similarity nes 7; Conserv
 N
 YROOFIOSVLNNGATR 23
 YROOFIQSVLNNGATR 23
 YKSQY----LNNGPQR 13
 YKSQY----LNNGPQR 12
 Application US/10503575
 Conservative
 Conservative
 US20050244823A1
 version 3.1
 2003-03-24
 24.2%;
 24.2%;
 Petrus Antonius
 2:
 2
 Score 30;
Pred. No.
 Score 30;
Pred. No.
 Mismatches
 Mismatches
 40;
 DB
34;
 6
 6
 Length 15;
 Length 13
 Indels
 Indels
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 Gaps
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Query Match
Best Local Similarity
Marches 5; Conserve
 RESULT 6
US-11-045-024-9528
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 ; TYPE: PRT
; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-2254
 CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR FILING DATE: 1993-03-05
PRIOR PAPPLICATION NUMBER: US 08/073,205
PRIOR PAPPLICATION NUMBER: US 08/073,205
PRIOR PAPPLICATION NUMBER: US 08/103,396
PRIOR PILING DATE: 1993-08-04
PRIOR PILING DATE: 1993-08-06
PRIOR FILING DATE: 1993-08-06
PRIOR FILING DATE: 1993-10-29
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
 Sequence 9528, Application US/11045024 Publication No. US20050271676A1
 SOFTWARE: PastSEQ for Windows Version 4.0 SEQ ID NO 2254
 Query Match
Best Local Similarity
 GENERAL INFORMATION:
 Sequence 2254, Application US/11045024 Publication No. US20050271676A1
 Matches
 -11-045-024-2254
 APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Inducing Cellular Responses to Human
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Ac
FILE REFERENCE: 2060.00440007
 APPLICANT:
 APPLICANT: Sette, Alessandro
 PRIOR FILING DATE:
 APPLICANT:
 APPLICANT:
 APPLICANT: Sette, Alessandro
 FILING DATE: 1994-03-04
APPLICATION NUMBER: US 08/347,610
 APPLICATION NUMBER: US 08/205,713
 INFORMATION:
 11 OFIOSVLNNGA 21
 1 QLIEALLDTGA 11
 7 KYROQFIQSVLNNGATRQ 24
 4 RYKOKF-OSVFT--VTRO 18
 Southwood, Scott
Livingston, Brian
Livingston, Brian
Chesnut, Robert
 Sidney, John
 Kubo, Ralph
Grey, Howard M.
 Southwood, Scott
 Celis, Esteban
 Baker, Denise Marie
 Sidney, John
 Conservative
 Conservative
 1994-12-01
 Robert
 22.6%;
45.5%;
 23.8%;
 Mismatches
 4; Mismatches
 Score 29.5;
Pred. No. 6;
 Score 28; DB 7;
Pred. No. 58;
 <u>ب</u>
 Length 11;
 Indels
 Indels
 <u>,,</u>
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 Gaps
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CURRENT APPLICATION NUMBER: US/10/945,674A
CURRENT FILING DATE: 2004-09-20
PRIOR APPLICATION NUMBER: CA 2,305,787
PRIOR FILING DATE: 2000-05-09
PRIOR FILING DATE: 2000-05-19
PRIOR FILING DATE: 2000-05-19
PRIOR APPLICATION NUMBER: US 09/852,424
PRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 140
SOFTWARE: Patentin Ver: 2.0
 US-10-945-674A-77
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 ; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS US-11-045-024-9528
 APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Virus-1 Using Peptide and FILE REFERENCE: 2060.0040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US/9/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US/08/07,146
PRIOR APPLICATION NUMBER: US/08/07,205
PRIOR APPLICATION NUMBER: US/08/073,205
PRIOR APPLICATION NUMBER: US/08/103,396
PRIOR APPLICATION NUMBER: US/08/103,396
PRIOR APPLICATION NUMBER: US/08/103,396
PRIOR APPLICATION NUMBER: US/08/103,396
PRIOR APPLICATION NUMBER: US/08/103,396
PRIOR APPLICATION NUMBER: US/08/103,396
PRIOR APPLICATION NUMBER: US/08/103,396
PRIOR APPLICATION NUMBER: US/08/159,339
PRIOR APPLICATION NUMBER: US/08/159,339
PRIOR APPLICATION NUMBER: US/08/159,339
PRIOR APPLICATION NUMBER: US/08/159,339
PRIOR APPLICATION NUMBER: US/08/159,339
PRIOR APPLICATION NUMBER: US/08/159,339
SEQ ID NO 77
LENGTH: 13
TYPE: PRT
 APPLICANT: Tudan,
APPLICANT: Merzou
APPLICANT: Arab,
APPLICANT: Saxena
APPLICANT: Eaves,
 GENERAL INFORMATION:
 Sequence 77, Application US/10945674A Publication No. US20060014682A1
 Matches
 Query Match
 SEQ ID NO 9528
 APPLICANT:
 NUMBER OF SEQ ID NOS: 14528
SOFTWARE: FastSEQ for Windows Version 4.0
 PRIOR APPLICATION NUMBER: US 08/347,610 PRIOR FILING DATE: 1994-12-01
 APPLICANT: Chemokine Therapeutics Corporation APPLICANT: The University of British Columbia TITLE OF INVENTION: CXCR4 Antagonist Treatment FILE REFERENCE: 080420-000100US
 APPLICANT:
 APPLICANT:
 TYPE: PRT
 Local Similarity 45.5%;
hes 5; Conservar:...
 APPLICATION NUMBER: US 08/205,713 FILING DATE: 1994-03-04
 11 OFIQSVLNNGA 21
 1 QLIEALLDTGA
 Saxena, Geeta
Eaves, Connie J.
 Salari, Hassan
 Clark-Lewis, Ian
 Merzouk, Ahmed
 Baker, Denise Marie
Celis, Esteban
 Grey, Howard M.
 Lakhdar
 Christopher
 Cellular Responses to Human Immunodeficiency Using Peptide and Nucleic Acid Compositions
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 Score 28; DB
Pred. No. 58;
 DB 7;
 of Hematopoietic Cells
 Length 11;
 Indels
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 Gaps
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; NAME/KEY: MOD_RES; LOCATION: (1)
; OTHER INFORMATION: X
; OTHER INFORMATION: C
; OTHER INFORMATION: 7
US-10-945-674A-77
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 ; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS US-11-045-024-13293
 RESULT 8
US-11-045-024-13293
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 CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR PRICING DATE: 1993-03-05
PRIOR PPLICATION NUMBER: US 08/073,205
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
 NUMBER OF SEQ ID NOS: 14528
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 13293
 Sequence 13293, Application US/11045024
Publication No. US20050271676A1
 Matches
 Query Match
Best Local
 GENERAL
 Matches
 Query Match
 APPLICANT:
APPLICANT:
APPLICANT:
 APPLICANT:
 APPLICANT: Sette, Alessandro APPLICANT: Sidney, John APPLICANT: Southwood, Scott APPLICANT: Livingston, Brian APPLICANT: Chesnut, Robert
 TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions FILE REFERENCE: 2060.0040007
 OTHER INFORMATION: Description of Artificial Sequence:synthetic OTHER INFORMATION: SDF-1 CXCR4 receptor antagonist analogue OTHER INFORMATION: C-terminal residues 55-67 linked by -(CH-2)-n-
 ORGANISM: Artificial Sequence
 LENGTH:
 Local
 APPLICATION NUMBER: US 08/205,713
FILLING DATE: 1994-03-04
APPLICATION NUMBER: US 08/347,610
FILING DATE: 1994-12-01
 APPLICATION NUMBER: US 08/159,184
FILING DATE: 1993-11-29
APPLICATION NUMBER: US 08/159,339
FILING DATE: 1993-11-29
 INFORMATION
 2 KWIQEYLEKALN 13
 Similarity 5; Conserv
 4.
 Similarity
 QFIQSVLNNGA 21
 KYROOFIOSVLN 18
QLIEALLDTGA 13
 Epimmune Inc.
 Kubo, Ralph
Grey, Howard M.
 Livingston, Brian
 Baker, Denise Marie
 Conservative
 Conservative
 Esteban
 Xaa = Leu linked via -(CH-2)-n-, where n = 1 to 20, to the C-terminal amino acid of any one of SEQ ID NOS:76, 78, 87-94, 103-110, and 117-122
 22.6%;
33.3%;
 22.6%;
45.5%;
 4; Mismatches
 Score 28; DB Pred. No. 70;
 Score 28; DB
Pred. No. 82;
 Mismatches
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 Length 15;
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Query Match
Best Local Similarity
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 TITLE OF INVENTION: MODIFIED FACTOR VIII
FILE REFERENCE: MER-133
CURRENT APPLICATION NUMBER: US/10/511,559
CURRENT FILING DATE: 2004-0-15
PRIOR APPLICATION NUMBER: PCT/EP03/04063
PRIOR FILING DATE: 2003-04-17
PRIOR APPLICATION NUMBER: EP 02008712.8
PRIOR FILING DATE: 2002-04-18
PRIOR FILING DATE: 2002-04-18
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR FILING DATE: 2003-03-24
NUMBER OF SEQ ID NOS: 1147
SOFTWARE: PastSEQ for Windows Version 4.0
 밁
 US-10-511-559-254
 8
 ; OTHER INFORMATION: Synthetic oligonucleotide US-11-111-463-12
 US-10-511-559-254
 RESULT 10
 Sequence 254, Application US/10511559 Publication No. US20050256304A1 GENERAL INFORMATION:
 SEQ ID NO 254
LENGTH: 13
 NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.2
SEQ ID NO 12
 GENERAL INFORMATION:
 Sequence 12, Application US/11111463 Publication No. US20050261196A1
 Matches
 Query Match
Best Local
 APPLICANT: Turner, Jerrold R.
APPLICANT: Mrsny, Randall J.
APPLICANT: Mrsny, Derek
PITTLE OF INVENTION: MYSSIN LIGHT CHAIN KINASE INHIBITORS AND METHODS OF USE
FILE REFERENCE: 092234-9030-US01
CURRENT APPLICATION NUMBER: US/11/111,463
CURRENT FILING DATE: 2005-04-21
PRIOR APPLICATION NUMBER: 60/564,313
PRIOR FILING DATE: 2004-04-21
 APPLICANT: JONES, Tim
APPLICANT: BAKER, Matthew
APPLICANT: CARR, Francis,
 TYPE: PRT
ORGANISM: Artificial sequence
 OTHER INFORMATION: Potential Epitope of human Factor VIII
 TYPE: PRT
ORGANISM: Artificial Sequence
 FEATURE:
 FEATURE:
 LENGTH:
 Local Similarity hes 4; Conserv
 4 QNYKYRQQ 11
 2 KKYKYRRK 9
 YROOFIOSVLNNG 20
YKSQY----LNNG 11
 Conservative
 Conservative
 21.8%;
 46.2%;
 21.8%;
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 Score 27; DB 6;
Pred. No. 1e+02;
 Score 27; DB 7;
Pred. No. 5.8e+04;
 Mismatches
 Mismatches
 Length 9;
 Length 13
 Indels
 Indels
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 Gaps
 Gaps
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RESULT 11

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APPLICANT: Ruprecht, Ruth M.
APPLICANT: Shisong, Jiang
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR MODULATING
TITLE OF INVENTION: A CYTOTOXIC T LYMPHOCYTE IMMUNE RESPONSE
FILE REPERENCE: DFN-043CN
CURRENT APPLICATION NUMBER: US/11/022.562
CURRENT FILING DATE: 2004-12-22
PRIOR APPLICATION NUMBER: FCT/US03/20322
PRIOR APPLICATION NUMBER: FCT/US03/20322
PRIOR FILING DATE: 2003-06-27
PRIOR FILING DATE: 2002-06-27
PRIOR FILING DATE: 2002-06-27
NUMBER OF SEQ ID NOS: 340
 RESULT 13
US-11-106-932-114
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 US-11-022-562-43; Sequence 43, Application US/11022562; Publication No. US20050249742A1
 ; ORGANISM: Human Immunodeficiency Virus US-11-022-562-44
 US-11-022-562-44
 US-11-022-562-43
 SOFTWARE: Fa
SEQ ID NO 44
LENGTH: 15
 Sequence 114, Application US/11106932 Publication No. US20050260697A1 GENERAL INFORMATION:
 Sequence 44, Application US/11022562 Publication No. US20050249742A1 GENERAL INFORMATION:
 Query Match
Best Local Similarity
 Query Match
 Matches
 GENERAL INFORMATION:
 Matches
 APPLICANT: Shisong, Jiang
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR MODULATING
TITLE OF INVENTION: A CYTOTOXIC T LYMPHOCYTE IMMUNE RESPONS
FILE REFERENCE: DFN-043CN
CURRENT APPLICATION NUMBER: US/11/022,562
CURRENT FILING DATE: 2004-12-22
PRIOR APPLICATION NUMBER: PCT/US03/20322
PRIOR APPLICATION NUMBER: PCT/US03/20322
PRIOR APPLICATION NUMBER: 60/392718
PRIOR FILING DATE: 2003-06-27
PRIOR FILING DATE: 2002-06-27
NUMBER OF SEQ ID NOS: 340
APPLICANT: WANG, KA-WANG KEVIN
APPLICANT: HAYES, RONALD
APPLICANT: LIU, MING CHEN
 SOFTWARE: FASTSEQ for Windows Version 4.0 EQ ID NO 43
 APPLICANT: Ruprecht, Ruth M. APPLICANT: Shisong, Jiang
 LENGTH: 15
TYPE: PRT
ORGANISM: Human Immunodeficiency Virus
 TYPE: PRT
 Local
 15 SVLNNGATRQ 24
 15 SVLNNGATRO 24
 1 SALSEGATPO 10
 S
 Similarity 6; Conserv
 FastSEQ for Windows Version 4.0
 SALSEGATPQ 14
 Conservative
 Conservative
 21.8%;
 21.8%;
 Score 27; DB 7;
Pred. No. 1.2e+02;
1; Mismatches 3
 Score 27; DB 7;
Pred. No. 1.2e+02;
 Mismatches
 IMMUNE RESPONSE
 Length 15;
 Length 15;
 Indels
 Indels
 0
 <u>,</u>
 Gaps
 Gaps
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 0,
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 ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS US-11-045-024-13006
 RESULT 14
 ; ORGANISM: Homo sapiens US-11-106-932-114
 US-11-045-024-13006
 SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 13006
LENGTH: 15
TYPE: PRT
 Sequence 13006, Application US/11045024 Publication No. US20050271676A1
 CURRENT APPLICATION NUMBER: US/11/106,932
CURRENT FILING DATE: 2005-04-15
NUMBER OF SEQ ID NOS: 147
SOFTWARE: PATENTIN VERSION 3.2
SEQ ID NO 114
 Best Local
Matches
 GENERAL INFORMATION:
 Query Match
 Query Match
Best Local
 Matches
 APPLICANT:
 APPLICANT:
 PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
 FILE REFERENCE: 2060.0040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
 APPLICANT: OLI, MONIKA
TITLE OF INVENTION: PROTEOLYTIC MARKERS AS DIAGNOSTIC BIOMARKERS FOR CANCER,
TITLE OF INVENTION: INJURY AND MUSCLE REHABILITATION/EXERCISE OVERTRAINING
FILE REFERENCE: 5853-549-1
 NUMBER OF SEQ ID NOS: 14528
 PRIOR APPLICATION NUMBER: US 08/347,610 PRIOR FILING DATE: 1994-12-01
 PRIOR
 PRIOR APPLICATION NUMBER: US 08/073,205 PRIOR FILING DATE: 1993-06-04
 TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
 APPLICANT:
 LENGTH: 15
TYPE: PRT
 APPLICANT:
 APPLICANT:
 APPLICANT:
 APPLICANT:
 APPLICANT: Sette, Alessandro
 APPLICATION NUMBER: US 08/103,396 FILING DATE: 1993-08-06
 FILING DATE: 1994-03-04
 FILING DATE: 1993-11-29
APPLICATION NUMBER: US 08/205,713
 APPLICATION NUMBER: US 08/159,339
 APPLICATION NUMBER: US 08/159,184 FILING DATE: 1993-11-29
15 SVLNNGATRQ 24
 15 SVLNNGATRO 24
 2 SEMVNGATEQ
 Similarity 6; Conserv
 h 21.8%;
Similarity 60.0%;
6; Conservative
 Livingston, Brian
Chesnut, Robert
Baker, Denise Marie
 Grey, Howard M.
 Celis, Esteban
 Southwood, Scott
 Sidney, John
 Epimmune Inc.
 Conservative
 Ralph
 1994-12-01
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 21.8%;
 Score 27; DB 7;
Pred. No. 1.2e+02;
1; Mismatches 3
 Score 27; DB 7;
Pred. No. 1.2e+02;
1; Mismatches 3
 Length 15;
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US-11-045-024-13016

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 US-10-973-977-8
 RESULT 16
 ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS US-11-045-024-13016
 Sequence 8, Application US/10973977
Publication No. US20060008467A1
GENERAL INFORMATION:
APPLICANT: HAYNES, BARTON F.
APPLICANT: LIAO, HUA-XIN
APPLICANT: LETVIN, NORMAN
 Sequence 13016, Application US/11045024 Publication No. US20050271676A1
 SEQ ID NO 13016
LENGTH: 15
 Query Match
 APPLICANT:
 CURRENT APPLICATION NUMBER: US/10/973,977
CURRENT FILING DATE: 2004-10-27
PRIOR APPLICATION NUMBER: 09/775,805
PRIOR FILING DATE: 2001-02-05
PRIOR APPLICATION NUMBER: 09/497,497
PRIOR FILING DATE: 2000-02-04
 APPLICANT: LETVIN, NORMAN
TITLE OF INVENTION: HUMAN IMMUNODEFICIENCY VIRUS VACCINE
FILE REFERENCE: 1579-942
 PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
 CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
 TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions FILE REFERENCE: 2060.0040007
 APPLICANT: Sette, APPLICANT: Sidne
NUMBER OF SEQ ID NOS: 107
 LENGTH: 15
TYPE: PRT
 SOFTWARE: FastSEQ for Windows Version 4.0
 PRIOR FILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
 PRIOR APPLICATION NUMBER: US 08/073,205
 PRIOR APPLICATION NUMBER: US 09/412,863
 APPLICANT:
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 Local Similarity
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 APPLICATION NUMBER: US 08/159,339 FILING DATE: 1993-11-29 APPLICATION NUMBER: US 08/205,713
 APPLICATION NUMBER: US 08/347,610
 APPLICATION NUMBER: US 08/159,184 FILING DATE: 1993-11-29
 FILING DATE: 1993-06-04
APPLICATION NUMBER: US 08/103,396
FILING DATE: 1993-08-06
 FILING DATE: 1994-03-04
 15 SVLNNGATRO 24
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 Grey, Howard M.
 Baker, Denise Marie
Celis, Esteban
 Southwood, Scott
 Epimmune Inc.
 Livingston, Brian
 Conservative
 Alessandro
 Ralph
 Robert
 21.8%;
 Score 27; DB Pred. No. 1.2e.
 1.2e+02;
 DB 7;
 Length 15;
 Indels
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Query Match
Best Local Similarity
Watches 6; Conserv?
 ; TYPE: PRT
; ORGANISM: Human immunodeficiency virus
US-10-973-977-8
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 US-11-033-039-1125
 ; ORGANISM: Homo sapiens
US-11-145-861-215
 SOFINGTH: 17
 US-11-145-861-215
 RESULT 17
 Sequence 215, Applic Publication No. US20 GENERAL INFORMATION:
 SOFTWARE: PatentIn version 3.3 SEQ ID NO 1125
 GENERAL INFORMATION:
 SEQ ID NO 8
 Sequence 1125, Application US/11033039 Publication No. US20060002947A1
 Matches
 Best Local Similarity
Matches 5; Conserv
 Query Match
 APPLICANT: Wang, Xiaoju
TITLE OF INVENTION: Phage Microarray Profiling of the Humoral Response to Disease
FILE REFERENCE: UN-09899
CURRENT APPLICATION NUMBER: US/11/145,861
CURRENT FILING DATE: 2005-06-06
 PRIOR APPLICATION NUMBER: 10/245.871
PRIOR FILING DATE: 2002-09-17
PRIOR APPLICATION NUMBER: 10/197,000
PRIOR APPLICATION NUMBER: 07-17
PRIOR FILING DATE: 2002-07-17
PRIOR APPLICATION NUMBER: 09/396,813
PRIOR FILING DATE: 1999-09-14
 APPLICANT: XU, MINZHEN
TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REFERENCE: REH-2017US01
CURRENT APPLICATION NUMBER: US/11/033,039
CURRENT FILING DATE: 2005-01-11
 SOFTWARE: PatentIn Ver.
 NUMBER OF SEQ ID NOS: 464 SOFTWARE: PatentIn version 3.3
 APPLICANT: Chinnaiyan, APPLICANT: Wang, Xiao;
 NUMBER OF SEQ ID NOS: 1452
 APPLICANT: HUMPHREYS, ROBERT APPLICANT: XU, MINZHEN
 TYPE: PRT
 OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: hybrid peptide
 ORGANISM: Artificial Sequence FEATURE:
 TYPE: PRT
 FEATURE
 LENGTH:
NAME/KEY: MOD_RES
LOCATION: (5)..(5)
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 10 OQFIQSVLNN 19
 15 SVLNNGATRQ 24
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 2 KOILSSVLNS
 SALSEGATPQ 14
 Application US/11145861
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 US20060014138A1
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 Score 27; DB 7;
Pred. No. 1.4e+02;
 Score 27; DB 6;
Pred. No. 1.3e+02;
 Mismatches
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 Length 16;
 Length 17;
 Indels
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FILE REFERENCE: DFN-043CN
CURRENT APPLICATION NUMBER: US/11/022,562
CURRENT FILING DATE: 200-12-22
PRIOR APPLICATION NUMBER: PCT/US03/20322
PRIOR FILING DATE: 2003-06-27
PRIOR APPLICATION NUMBER: 60/392718
PRIOR APPLICATION NUMBER: 60/392718
PRIOR FILING DATE: 2002-06-27
NUMBER OF SEQ ID NOS: 340
SOFTWARE: FastSEQ for Windows Version 4.0
SECTION: 250
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 Query Match
Best Local Similarity
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 RESULT 19
US-11-022-562-249
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 ; OTHER INFORMATION: AVB
US-11-033-039-1125
 ; ORGANISM: Human Immunodeficiency Virus US-11-022-562-249
 US-11-022-562-250
 Query Match
Best Local S
Matches 5
 Sequence 250, Appublication No.
 NUMBER OF SEQ ID NOS: 340
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 249
LENGTH: 20
 Sequence 249, Applic Publication No. US20 GENERAL INFORMATION:
 Query Match
Best Local
 GENERAL INFORMATION:
 APPLICANT: Ruprecht, Ruth M.
APPLICANT: Shisong, Jiang
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR MODULATING
TITLE OF INVENTION: A CYTOTOXIC T LYMPHOCYTE IMMUNE RESPONS
FILE REFERENCE: DFN-043CN
CURRENT APPLICATION NUMBER: US/11/022,562
CURRENT FILING DATE: 2004-12-22
PRIOR APPLICATION NUMBER: PCT/US03/20322
PRIOR APPLICATION NUMBER: BCT/US03/20322
PRIOR APPLICATION NUMBER: 60/392718
PRIOR FILING DATE: 2002-06-27
PRIOR FILING DATE: 2002-06-27
PRIOR FILING DATE: 2002-06-27
 APPLICANT: Ruprecht, Ruth M.
APPLICANT: Shisong, Jiang
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR MODULATING
TITLE OF INVENTION: A CYTOTOXIC T LYMPHOCYTE IMMUNE RESPONSE
 ORGANISM: Human Immunodeficiency Virus
 TYPE: PRT
 TYPE: PRT
Local Similarity 60. hes 6; Conservative
 15 SVLNNGATRO 24
 3 SALSEGATPQ 12
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 Similarity 5; Conserv
 ROQFIQSVLNNGA 21
 Application US/11022562
 Application US/11022562
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 US20050249742A1
21.8%; Score 27; DB 7;
60.0%; Pred. No. 1.6e+02;
vative 1; Mismatches 3
 21.8%;
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 Score 27; DB Pred. No. 1.6e 1; Mismatches
 Score 27; DB 7; Le
Pred. No. 1.5e+02;
 DB 7;
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 3; Indels
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 Length 20;
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 Length 19;
 Indels
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; FEATURE:
; OTHER INFORMATION: Synthetic Peptide
US-11-196-400-16:
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 ; SEQ ID NO 329
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-503-575-329
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 US-10-503-575-329
 RESULT 21
 FILE REFERENCE: 2799/72843-PCT-US
CURRENT APPLICATION NUMBER: US/10/503,575
CURRENT FILING DATE: 2004-08-04
PRIOR APPLICATION NUMBER: PCT/NL03/00077
PRIOR FILING DATE: 2003-02-04
PRIOR APPLICATION NUMBER: EP 02075456.0
PRIOR FILING DATE: 2002-02-04
NUMBER OF SEQ ID NOS: 340
SOFTWARE: Patentin version 3.1
 NUMBER OF SEQ ID NOS: 29
SOFTWARE: PatentIn versi
SEQ ID NO 16
 GENERAL INFORMATION:
APPLICANT: DRUILHE, PIERRE
APPLICANT: DAUBERSIES, PI
Matches
 Query Match
Best Local Similarity
 Sequence 16, Application US/11196400 Publication No. US20050287166A1
 Matches
 Query Match
 GENERAL INFORMATION
 PRIOR APPLICATION NUMBER: US/09/742,096
PRIOR FILING DATE: 2000-12-22
PRIOR APPLICATION NUMBER: US 08/973,462
PRIOR FILING DATE: 1998-02-06
PRIOR APPLICATION NUMBER: PCT/FR96/00894
PRIOR APPLICATION NUMBER: PCT/FR96/00894
PRIOR APPLICATION NUMBER: PCT/FR96/00894
 APPLICANT: DAUBERSIES, PIERRE TITLE OF INVENTION: MALARIAL PRE-ERYTHROCYTIC STAGE POLYPEPTIDE MOLECULES FILE REFERENCE: 200773USODIV CURRENT APPLICATION NUMBER: US/11/196,400 CURRENT FILING DATE: 2005-08-04
 PRIOR APPLICATION NUMBER: FR 95/07007 PRIOR FILING DATE: 1995-06-13
 APPLICANT: Drijfhout, Jan Wouter
APPLICANT: van Veelen, Petrus Ar
APPLICANT: Koning, Frits
 LENGTH: 20
TYPE: PRT
ORGANISM: Artificial Sequence
 APPLICANT: Koning, Frits
TITLE OF INVENTION: DETECTING THOSE AND NOVEL NON-ANTIGENIC FOOD COMPOUNDS
 Local Similarity
 15 SVLNNGATRO 24
 7 KYRQQFIQSVLN 18
4; Conservative
 RWMLQDIQEVLN 14
 SALSEGATPQ 12
 Application US/10503575
 Conservative
 US20050244823A1
 version 3.3
 21.0%;
50.0%;
 21.0%;
 Petrus Antonius
4; Mismatches
 Score 26; DB 7;
Pred. No. 2.4e+02;
 Score 26; DB 6;
Pred. No. 2.2e+02
2; Mismatches
 DB 6; Length 19;
3; Indels
 Length 20;
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; TYPE: PRT ; ORGANISM: Homo sapiens US-11-054-515-2823
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 ; LENGTH; 9
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-11-041-893-54
 US-11-041-893-54
 US-11-054-515-2823
 RESULT 24
 PRIOR APPLICATION NUMBER: 60/580,347
PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: 60/340,817
PRIOR FILING DATE: 2001-11-16
 Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 3247
SEQ ID NO 2823
LENGTH: 12
 Sequence 54, Application US/11041893

Publication No. US20060002941A1

GENERAL INFORMATION:
APPLICANT: Mahairas, Gregory G.
APPLICANT: MAHAIRAS, GREGORY G.
ATTILE OF INVENTION: COMPOSITIONS COMPRISING IMMUNE RESPONSE
TITLE OF INVENTION: ALTERING AGENTS AND METHODS OF USE
FILE REFERENCE: 100123.401
 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 54
 GENERAL INFORMATION
 Sequence 2823, Application US/11054515 Publication No. US20050255532A1
 Query Match 20.2%;
Best Local Similarity 62.5%;
Matches 5; Conservative
 APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PF523P3
CURRENT APPLICATION NUMBER: US/11/054,515
CURRENT FILING DATE: 2005-02-10
 CURRENT APPLICATION NUMBER: US/11/041,893
CURRENT FILING DATE: 2005-01-24
PRIOR APPLICATION NUMBER: US 60/616,855
PRIOR FILING DATE: 2004-10-06
PRIOR APPLICATION NUMBER: US 60/538,713
PRIOR APPLICATION NUMBER: US 60/538,713
PRIOR FILING DATE: 2004-01-23
 NUMBER OF SEQ ID NOS: 295
 PRIOR APPLICATION NUMBER: 60/543,296 PRIOR FILING DATE: 2004-02-11
 PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
 FILING DATE: 2001-06-15
APPLICATION NUMBER: 60/293,499
FILING DATE: 2001-05-25
APPLICATION NUMBER: 60/277,379
 APPLICATION NUMBER: 60/276,248 FILING DATE: 2001-03-16
 APPLICATION NUMBER: 09/880,748
 FILING DATE: 2001-03-21
 14 QSVLNNGA 21
 1 QAVANGGA 8
 Score 25; DB 7;
Pred. No. 5.8e+04
 Mismatches
 DB 7; Length 9;
 2; Indels
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 Gaps
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CURRENT APPLICATION NUMBER: US/10/511,559
CURRENT FILING DATE: 2004-10-15
PRIOR APPLICATION NUMBER: PCT/PP03/04063
PRIOR FILING DATE: 2003-04-17
PRIOR APPLICATION NUMBER: EP 02008712.8
PRIOR FILING DATE: 2002-04-18
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR FILING DATE: 2003-03-24
NUMBER OF SEQ ID NOS: 1147
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 256
 Query Match
Best Local Similarity
Thehes 5; Conserve
 Query Match
Best Local Similarity
Watches 5; Conserve
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Search completed: January 26, 2006, 08:39:06 Job time : 4.55172 secs
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 ; FEATURE:
; OTHER INFORMATION: Potential Epitope of human Factor VIII
US-10-511-559-256
 US-10-511-559-256
 RESULT 25
 GENERAL INFORMATION:
APPLICANT: JONES, Tim
APPLICANT: BAKER, Matthew
APPLICANT: CARR, Francis, J.
TITLE OF INVENTION: MODIFIED FACTOR VIII
 Sequence 256,
 Publication No.
 FILE REFERENCE: MER-133
 TYPE: PRT
ORGANISM: Artificial Sequence
 LENGTH: 13
 17 LNNGATR 23
 1 DMAQNYKY 8
 DMKVYYKY
 LNNGPQR
 Application US/10511559
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 US20050256304A1
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 0; Mismatches
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 Score 25; DB 6;
Pred. No. 2.1e+02;
 Score 25; DB 7;
Pred. No. 1.9e+02;
 Length 13
 Length 12
 Indels
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 Gaps
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Title:
Perfect score:
Sequence:
 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 100 :
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Maximum DB
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 Searched:
 Scoring table:
 Total number of hits satisfying chosen parameters:
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 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
 Score
 seq length:
seq length:
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124
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192.434 Million cell updates/sec
 283416 seqs, 96216763 residues
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 GenCore version 5.1.6
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 Length
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 T-cell receptor be flavodoxin B - Azo proteinase inhibit antifungal 2S stor ribosomal protein tubulin alpha chai
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kidney stone matri
hutU protein - Kle
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T-cell receptor be
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hypothetical 2.1K
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D-arabinose 1-dehy
hypothetical 1.7K
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 translation elonga
lipovitellin - Afr
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flagellar motor sw
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parasporal crystal
 Description
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A48394
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C59151
 S42587
A32428
 S48655
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T-cell receptor al unidentified 27.2K stylar glycoprotei stylar glycoprotei actin - sea urchin Ig heavy chain Dy T-cell receptor be major fat-globule
glutaminase - Alca
capsid protein VP5
lipopolysaccharide
protein kinase C i
lens intrinsic mem
cytochrome c3 - De
high conductance c
calmodulin, vasoac type II site-speci acetylcholine rece equinatoxin 1A - s T-cell antigen rec wd-repeat protein cAMP-regulated pho creatine kinase (E comosain (EC 3.4.2 recombination prot ribulose-bisphosph cytochrome b559 co ribosomal protein clotting protein -mosact - sea urchi 14-3-3 protein hom amine oxidase (cop spectrin alpha cha celf protein - Esc polistes mastopara S-allele-associate mosacc monodehydroascorba morein-tyrosine k T cell receptor 1 stylar glycoprotei protein 425 - Cali nitrogenase cofact S-allele-associate S-allele-associate GTP-binding protei T-cell antigen rec neurotoxin-associa substance P - Atla calreticulin, hepa protein-tyrosine substance P - At acetolactate synth protein kinase C i glutathione dehydr microbial serine | T cell receptor V 4-hydroxybenzoate ananain (EC 3.4.22 hemocyanin chain I Ig H chain V-D-J very-high-density calreticulin, Ig heavy chain DJ Ig heavy chain DJ amine oxidase (cop Ig heavy chain DJ hemocyanin chain urinary tract ston

pyruvate dehydroge T-cell receptor be spoVA protein - Ba

adherence lectin

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RESULT 3
C56817
 C;Date: 21-Jul-2000 #sequence_revision 21-Jul-2000 #text_change 09-Jul-2004 C;Accession: T50757 R;Choudhary, M.; Kaplan, S. Nucleic Acids Res. 28, 862-867, 2000 Nucleic Acids Res. 28, 862-867, 2000 A;Title: DNA sequence analysis of the photosynthesis region of Rhodobacter A;Reference number: Z25222; MUID:20115911; PMID:10648776 A;Accession: T50757
 A;Reference number: A56817; MUID:91355213; PMID:1653017

A;Accession: C56817
 photosystem I protein PsaL - Synechococcus sp. (PCC 6301) (fragment)
C;Species: Synechococcus sp.
C;Date: 18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change 18-Aug-1995
C;Accession: C56817
 C;Accession: $42282

R;Crickmore, N.; Wheeler, V.C.; Ellar, D.J.

Mol. Gen. Genet. 242, 365-368, 1994

Mol. Gen. Genet. 242, 365-368, 1994

A;Title: Use of an operon fusion to induce expression and crystallisation of a Bacillus

A;Reference number: $42282; MUID:94150472; PMID:7906381
 R;Li, N.; Warren, P.V.; Golbeck, J.H.; I
Biochim. Biophys. Acta 1059, 215-225, 19
A;Title: Polypeptide composition of the
 ş
 A;Genome: plasmid
C;Keywords: delta-endotoxin
 A; Cross references: UNIPARC: UPI000017ACD4
A; Cross references: UNIPARC: galleriae 916
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 A; Molecule type: protein A; Residues: 1-10 < CRI>
 A; Accession: S42282
 parasporal crystal protein cryIIB - Bacillus thuringiensis plasmid (fragment) N;Alternate names: delta endotoxin
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 A;Gene:
 A; Experimental source:
 A;Cross-references: UNIPROT:Q53121; UNIPARC:UPI00001329F3; EMBL:AF195122; PIDN:AAF24301
A;Experimental source: strain 2.4.1
 A;Residues: 1-20 <CHO>
 A;Status: preliminary; translated from GB/EMBL/DDBJA;molecule type: DNA
 pufK protein [imported] - Rhodobacter sphaeroides
A;Status: preliminary
 Gene: cryIIB
 ;Species: Bacillus thuringiensis
;Date: 19-Mar-1997 #sequence_revision 01-Aug-1997 #text_change 24-Jul-1998
 Species: Rhodobacter sphaeroides
 Matches
 Query Match
Best Local
 Genetics:
 Matches
 Query Match
Best Local
 Genetics
 N
 pufK
 13
 8
 Similarity 5; Conserv
 6,
 Similarity
 IOSVLNNG
 MNTVLNNG
 ROOFIOSVLNNG 20
 Conservative
 Conservative
 P.V.; Golbeck, J.H.; Frank, G.;
 20
 22.6%;
 24.2%;
50.0%;
 galleriae
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 <u>ب</u>
 Score 30; DB 2;
Pred. No. 3.2e+02;
 Score 28; DB 2;
Pred. No. 3.2e+02;
 ALIGNMENTS
 Mismatches
 Mismatches
 Zuber,
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 Length 10;
 Length 20
 Indels
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 Η...
 Bryant, D.A.
 Rhodobacter sphaeroides
 0,
 0
 Gaps
 Gaps
 0
 0
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RESULT
PH0771
 A;Cross-references: UNIPARC:UPI0000132581
A;Note: sequence extracted from NCBI backbone (NCBID:57972)
C;Genetics:
 hypothetical 2.1K protein - potato chloroplast C;Species: chloroplast Solanum tuberosum (potato) C;Species: chloroplast Solanum tuberosum (potato) C;Date: 10-Mar.1994 #sequence revision 28-Oct-1994 #text_change 09-Jul-2004 C;Accession: JQ2320; JQ2315 R;Kawagoe, Y; Kikuta, Y. R;Kawagoe, Y; Kikuta, Y. Theor. Appl. Genet. 81, 13-20, 1991 Theor. Appl. Genet. 81, 13-20, 1991 A;Title: Chloroplast DNA evolution in potato (Solanum tuberosum L.).
 A;Cross-references: UNIPARC:UPI0000115FBE; EMBL:X60865; NID:g53624; PIDN:CAA43255.1; A;Experimental source: T lymphocyte C;Keywords: T-cell receptor
 A;Genome: cr
C;Keywords:
 A;Cross-references: UNIPROT:Q7M2E3; UNIPARC:UPI000017B0C3 A;Experimental source: cv. W553-4 A;Accession: JQ2315
 밁
 A,Title: T cell receptor genes in a series of class I major histocompatibility complex-r allelic exclusion and antigen-specific repertoire.
A,Reference number: PH0746; MUID:92078846; PMID:1836010
A;Accession: PH0771
 C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 05-Nov-1999
 A; Molecule type: protein
A; Residues: 1-21 < LI1>
 Ş
 A; Molecule type: DNA
A; Residues: 1-17 < KW2>
 A; Reference number: JQ2306
A; Accession: JQ2320
 S
 A; Molecule type: mRNA
A; Residues: 1-12 < CAS>
 R;Casanova, J.L.; Romero, P.; Widmann, C.; Kourilsky, P.; Maryanski, J.L.
J. Exp. Med. 174, 1371-1383, 1991
 C; Accession:
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 A;Gene: psaL
 A;Cross-references: UNIPARC:UPI000017B0C3
A;Experimental source: cv. 150
 A; Molecule type: DNA
A; Residues: 1-17 <KW1>
 T-cell receptor beta chain (PE5.1.1) - mouse (fragment)
 ;Genome: chloroplast
 Query Match
Best Local
 Matches
 Query Match
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Best Local
 Matches
 Genetics:
 14 OSVLNNGATRO 24
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 chloroplast
 Similarity 5; Conserv
 Similarity 4; Conserv
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 Similarity
MAQNYKYR 9
 ASSFQYEQYF 11
 AQNYKYRQQF 12
 QDVIANGGTAE 12
 mRNA
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 21.0%;
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 Score 26;
Pred. No.
 Score 26; DB 2;
Pred. No. 1.2e+03
 Score 27; DB 2;
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C;Accession: JQ2310
R;Kawagoe, Y.; Kikuta, Y.
Theor. Appl. Genet. 81, 13-;
A;Title: Chloroplast DNA evo
A;Reference number: JQ2306
A;Accession: JQ2310
A;Accession: JQ2310
 A;Molecule type: protein
A;Rosidues: 1-7,'X',9-19 <JAN>
A;Rosidues: 1-7,'X',9-19 <JAN>
A;Rosidues: 1-7,'X',9-19 <JAN>
A;Rosidues: 1-7,'X',9-19 <JAN>
A;Rosidues: UNIRAOT:Q9TRK6; UNIPARC:UPI000008701B; PIDN:AAB24426.1;
A;Experimental source: kidney
A;Note: sequence extracted from NCBI backbone (NCBIP:119897)
A;Note: we show one of the unidentified residues as tyrosine forming the top C;Superfamily: amiloride-binding protein
C;Keywords: oxidoreductase; quinoprotein; topaquinone
C;Keywords: oxidoreductase; quinoprotein; topaquinone
F;8/Modified site: topaquinone (Tyr) #status experimental
 RESULT 8
S18582
 hypothetical protein K (pufQ 3' region) - Rhodobacter sphaeroides C;Species: Rhodobacter sphaeroides C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 03-May-1994 C;Accession: S18582; S32855 R;Hunter, C.N.; McGlynn, P.; Ashby, M.K.; Burgess, J.G.; Olsen, J.D. Mol. Microbiol. 5, 2649-2661, 1991
 밁
 S
 Biochemistry 31, 12147-12154, 1992
A;Title: Identification of topaquinone and
A;Reference number: A44239; MUID:93090748;
A;Accession: A44239
 amine oxidase (copper-containing) (EC 1.4.3.6), kidney - pig (fragment)
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004
C:Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004
 á
 A;Molecule type: DNA
A;Residues: 1-17 <KAW>
A;Cross-references: UNIPROT:Q7M2E9; UNIPARC:UPI000017B098
A;Experimental source: strain Toko
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 A;Title: DNA sequencing and complementation/deletion analysis A;Reference number: S18580; MUID:92140030; PMID:1779756
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 C; Keywords:
 hypothetical
A; Accession: S18582
 Query Match
Best Local Similarity
 Accession: A44239 (Janes, S.M.; Palcic, M.M.; Scaman, C.H.; Smith, A.J.; Brown, D.E.; Dooley, D.M.;
 Query
Best L
 ;Date: 10-Mar-1994 #sequence_revision;Accession: JQ2310
 Genome: chloroplast
 Genetics:
 Matches
 Species: chloroplast Lycopersicon escul
 Local Similarity
 7
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 chloroplast
 1 MKPNYSYK 8
 N
 4.
 2.1K protein - tomato chloroplast (strain Toko)
 MAQNYKYR 9
 NYKYRQQFI 13
 Conservative
 Conservative
 13-20, 1991
 evolution in
 20.2%;
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 Score 25; DB
Pred. No. 1.9e
0; Mismatches
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 Score 25; DB
Pred. No. 1.7e
1; Mismatches
 potato (Solanum tuberosum L.)
 28-Oct-1994 #text_change 09-Jul-2004
 lentum (tomato)
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PMID:1457410
 DB 2,
1.7e+03;
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RESULT 11
B57789
kidney stone matrix protein - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 23-Feb-1996 #sequence_revision 23-Feb-C;Accession: B57789
 RESULT 9
S03508
 A;Molecule type: DNA
A;Residues: 1-20 <HUN>
A;Cross-references: UNIPARC:UPI000017AB8B; EMBL:X68795
 J. Protein Chem. 10, 415-425, 1991
A;Title: Clostridium botulinum types A, B,
A;Reference number: A44644; MUID:92143938;
 neurotoxin-associated protein type B Hn+ 35K chain, band 3a - C;Species: Clostridium botulinum C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_chang
 A;Residues: 1-20 <WIN>
A;Cross-references: UNIPARC:UPI0000115262;
A;Note: this sequence was determined from tC;Keywords: T-cell receptor
 T-cell receptor alpha chain J region (19) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change
 A;Cross-references: UNIPROT:Q9R5N6; LA:Note: sequence extracted from NCBI
 A; Molecule type: protein A; Residues: 1-10 < SOM>
 A;Contents: type B
A;Accession: F44644
 C;Accession: F44644
R;Somers, E.; DasGupta, B.R.
 F44644
 RESULT 10
 A; Accession:
 A; Title: Genomic organization of the genes encoding mou A; Reference number: S03503; MUID:85296332; PMID:2993908
 A;Status: preliminary
 A; Molecule type: DNA
 Nature 316, 832-836, 1985
 R;Winoto, A.; Mjolsness, S.; Hood,
 C; Accession: S03508
 Matches
 ;Keywords:
 Query Match
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Best Local
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 13 IQSVLNN 19
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 #sequence_revision 23-Feb-1996
 19.4%;
 20.2%;
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 Score 25; ; Pred. No.
 <u>,,</u>
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 Score 24; DB 2;
Pred. No. 1.4e+03
 Score 25; DB 2;
Pred. No. 2e+03;
 UNIPARC:UPI00000B2EFF
I backbone (NCBIP:83787)
 Pred. No. 2e+03;
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 #text_change 09-Jul-2004
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 Length 20
 Length 10
 Length 20;
 mouse
 ; NID:g54521; PIDN:CAA26865.1; gene
 Indels
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 proteins with or without
 Clostridium botulinum
 05-Nov-1999
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 receptor alpha-chain.
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 Gaps
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RESULT 12
C36730
 R;Schwacha, A.; Bender, R.A.
J. Bacteriol. 172, 5477-5481, 1990
A;Title: Nuclectide sequence of the gene encoding the repressor A;Reference number: A36730; MUID:90368611; PMID:2203754
A;Accession: C36730
 C;Species: Klebsiella pneumoniae
C;Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 08-Oct-1999
C;Accession: C36730
 A;Description: The proteins A;Reference number: A57789 A;Accession: B57789
 glycoprotein component 16/major fat-globule membrane protein/MFG-E8 homolog C;Species: Bos primigenius taurus (cattle) C;Decies: Bos primigenius taurus (cattle) C;Date: 19-Nov-1993 #sequence_revision 18-Nov-1994 #text_change 07-Feb-1997 C;Date: 19-Nov-1994
 R; Binette, J.P.; submitted to the
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 á
 Biochem. Mol. Biol. Int. 29, 54
A; Title: The major fat-globule
II-like sequences.
 C;Accession: ----
R;Mather, I.H.; Banghart, L.k
"~" Riol Int. 29;
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 A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-9 <SCH>
 hutU protein -
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 A;Molecule type: protein
A;Residues: 1-14 <MAT>
A;Cross-references: UNIPARC:UPI000014C319
 A;Status: preliminary
 A; Accession: F48394
 A;Reference number: A48394; MUID:93250576; PMID:8485470
 F48394
 RESULT 13
 A;Cross-references: UNIPARC:UPI000012CEC3; GB:M34604; NID:g149203; PIDN:AAA25076.1;
 ;Keywords:
 Experimental source: milk
 Query Match
Best Local
 Note: sequence extracted from NCBI backbone (NCBIP:131455)
 Matches
 Query Match
Best Local
 Matches
 Query Match
Best Local
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 Similarity
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 Similarity
 NYKYRQQFIQS 15
 MAQNYKYRQ 10
 IOSVLNNGATR 23
 NVKFTGEIVQS 14
 VTXVVTQGASR
 MSQS-KYRQ 8
 Klebsiella pneumoniae (fragment)
 Binette, M.B.
Protein Sequence Database,
Proteins of gallbladder
 Conservative
 Conservative
 Conservative
 19.4%;
 L.R.; Lane, W.S.
29, 545-554, 1993
 19.0%;
 18.5%;
36.4%;
 14
 membrane
 2; Mismatches
 3; Mismatches
 Score 23.5; DB 2;
Pred. No. 2.8e+05;
 Score 24; D
Pred. No. 2.
 Score 23; DB 2;
Pred. No. 2.8e+03;
3; Mismatches 4
 proteins, bovine
 stones
 February 1996
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 4; Indels
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D-arabinose 1-dehydrogenase (NAD(P)) (EC 1.1.1.117) - yeast (Candida albicans) C;Species: Candida albicans C;Abecies: Candida albicans C;Abte: 29-Jan-1998 #sequence_revision 06-Feb-1998 #text_change 03-Jun-2002 C;Accession: S72217 C;Accession: S72217 R;Kim, S.T.; Huh, W.K.; Kim, J.Y.; Hwang, S.W.; Kang, S.O. Biochim. Biophys. Acta 1297, 1-8, 1996 A;Title: D-arabinose dehydrogenase and biosynthesis of erythroascorbic acid in A;Reference number: S72217; MUID:96439039; PMID:8841374
 C;Accession: S00494
R;Makino, N.; Kimura, S.
Eur. J. Biochem. 173, 423-430, 1988
A;Title: Subunits of Panulirus japonicus hemocyanin. 1.
A;Reference number: S00492; MUID:88196131; PMID:3360019
A;Accession: S00494
 hemocyanin chain II - Japanese spiny lobster (fragment)
C;Species: Panulirus japonicus (Japanese spiny lobster)
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change
 Gene 129, 41-49, 1993
A;Title: Sequence analysis of the left end of the Bacillus subtilis bacteriophage SPP1
A;Reference number: JN0729, MUID:93328123, PMID:8335259
A;Accession: JN0720.
 C;Species: phage SPP1
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 17-Mar-1999
C;Accession: JN0730
 A; Molecule type: DNA
A; Residues: 1-15 < CHA>
 hypothetical 1.7K protein - N;Alternate names: hypotheti
 A;Cross-references: UNIPARC:UPI000017CDB9C;Keywords: oxidoreductase
 A; Molecule type: protein A; Residues: 1-14 < KIM>
 A;Molecule type: protein
A;Residues: 1-20 <MAK>
A;Cross_references: UNIPROT:P82312; UNIPARC:UPI000012C37C
 A;Cross-references: UNIPARC:UPI000017A84E; EMBL:X65941
 R;Chai,
 C; Keywords:
 Query Match
Best Local :
 Query Match
Best Local
 Superfamily: hemocyanin;
 Matches
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Local Similarity hes 5; Conserv
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 S.; Szepan,
 13
 16 VLNNG 20
 copper; hemolymph; hexamer; oxygen carrier
 1 MLNNG 5
 Similarity 5; Conserv
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 IQSVLNNG
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 protein - phage SPP1
hypothetical protein 42.1
 U.; Lueder, G.; Trautner, T.A.; Alonso,
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 Score 23; DB
Pred. No. 4e+0
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 Pred. No. 3e+(
l; Mismatches
 Score 23; DB 2;
Pred. No. 3e+03;
 Mismatches
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 4e+03;
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R;Wallace, R.A.; Hoch, K.L.; Carnevali, O.
J. Mol. Biol. 213, 407-409, 1990
A;Title: Placement of small lipovitellin subunits within the vitellogenin precursor in A;Reference number: $10624; MUID:90278951; PMID:2352275
A;Accession: $10624
 A/Experimental source: human bile and C/Superfamily: translation elongation C/Keywords: GTP binding
 R;Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A;Description: The proteins of kidney and gallbladder stones.
A;Reference number: A58501
A;Accession: D58503
 C;Species: Escherichia coli
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_chan
C;Accession: PS0028
R;Malakooti, J; Komeda, Y.; Matsumura, P.
J. Bacteriol. 171, 2728-2734, 1989
A;Title: DNA sequence analysis, gene product identification, A; Esterace number: PS0027; MUID:89213983; PMID:2651416
A;Accession: PS0028
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 RESULT 18
D58503
 A;Molecule type: DNA
A;Residues: 1-20 <MAL>
A;Cross-references: UNIPARC:UPI000017AA3D
C;Genetics:
 A; Molecule type: protein A; Residues: 1-12 <WAL>
 R; Wallace,
 RESULT 19
S10624
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 A; Molecule type: protein A; Residues: 1-9 <BIN>
 translation elongation factor EF-Tu - unidentified bacterium C;Species: unidentified bacterium C;Species: unidentified bacterium 07-Feb-1997 #sequence_revision 07-Feb-1997 #text_chan
 á
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 A;Gene: flbD
 flagellar motor switch protein flbD - Escherichia coli (fragment)
C;Species: Escherichia coli
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 18-Jun-1993
 lipovitellin - African clawed frog
7.Species: Xenopus laevis (African clawed frog)
2.Date: 18-Feb-1994 #sequence_revision 10-Nov-1995 #text_change 10-Nov-1995
 Status: preliminary
 Accession: S10624
 Query Match
Best Local
 Cross-references: UNIPROT:Q7M151; UNIPARC:UPI000017827D Experimental source: human bile and stones
 Accession: D58503
 Matches
 Query Match
 Local
 17 LNNGATRQ 24
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 1 MNNHATVO
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 Similarity 5; Conserv
 YRPQF 6
 VASSTAHKQQDINHLLD
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 Conservative
UNIPARC: UPI000017BF94
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62.5%;
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 Score 22; DB
Pred. No. 2.8e
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 Score 23; DB
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R;Casanova, J.L.; Romero, P.; Widmann, C.; Kourilsky, P.; Maryanski, J.L. J. Exp. Med. 174, 1371-1383, 1991
A;Title: T cell receptor genes in a series of class I major histocompatik allelic exclusion and antigen-specific repertoire.
 T-cell receptor beta chain (M2) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 05-Nov-1999
C;Accession: PH0768
 RESULT
PH0768
 A; Note: molecular weight 38K,
 A; Molecule type: protein A; Residues: 1-17 < TSU>
 A; Reference number: A; Accession: PS0454
 submitted to JIPID,
 R;Tsugita,
 C; Accession:
 38K protein 3129 - rice (strain Nihonbare) (fragment)
C;Species: Oryza sativa (rice)
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 23-Mar-1995
 RESULT
PS0454
 A,Title: T cell receptor genes in a series of class I major histocompatibility complex-allelic exclusion and antigen-specific repertoire.
A,Reference number: PH0746; MUID:92078846; PMID:1836010
A;Accession: PH0746
 T-cell receptor beta chain (B28) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 05-Nov-1999
C;Accession: PH0746
 C; Keywords: T-cell receptor
 A;Cross-references: UNIPARC:UPI0000115FA5; EMBL:X60837; NID:g50098; PIDN:CAA43230.1; A;Experimental source: T lymphocyte
 A; Molecule type: mRNA
A; Residues: 1-12 < CAS>
 R;Casanova, J.L.; Romero, P.; Wid
J. Exp. Med. 174, 1371-1383, 1991
 Cross-references: UNIPARC:UPI000017B100;Experimental source: leaf, chloroplast,;Note: molecular weight 38K, pI 5.9
 Matches
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 19 NGATR 23
 6 YKQQY 10
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Similarity 40.0%;
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 ASSSRYEQYF 11
 YRQQF 12
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 April 1993
PS0206
PH0746;
 17.7%;
 80.0%;
 17.7%;
MUID: 92078846;
 Widmann, C.; Kourilsky, P.; Maryanski, J.L.
 <u>,</u>
 Score 22; DB 2;
Pred. No. 4.9e+03;
 2
 Score 22; DB 2;
Pred. No. 3.4e+03;
 Score 22; DB 2; Le
Pred. No. 3.4e+03;
2; Mismatches 0;
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 Length 17
 Length 12;
 Length 12;
 Indels
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RESULT 23
S17461
S17461
Claredoxin B - Azotobacter chroococcum (fragment)
Clare: 19-Mar-1997 #sequence_revision 30-Jan-1998 #text_change 09-Jul-2004
Clate: 19-Mar-1997 #sequence_revision 30-Jan-1998 #text_change 09-Jul-2004
Claccession: S17461
R;Bagby, S.; Barker, P.D.; Hill, H.A.O.; Sanghera, G.S.; Dunbar, B.; Ashby, G.A.; Eady, Biochem. J. 277, 313-319, 1991
A;Title: Direct electrochemistry of two genetically distinct flavodoxins isolated from A;Reference number: S16929; MUID:91315397; PMID:1859358
A;Recession: S17461
A,Molecule type: protein
A,Residues: 1-20 SBAG-
 RESULT 25
D42842
 A;Cross-references: UNIPROT:P07475; UNIPARC:UPI00001763AB
A;Note: proteinase inhibitor DE-3 has an estimated molecular weight
C;Superfamily: plant Kunitz-type proteinase inhibitor
C;Keywords: proteinase inhibitor
 RESULT
JA0142
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 A; Molecule type: mRNA
A; Residues: 1-18 < CAS>
antifungal 2S storage albumin large chain - radish (fragment)
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 Phytochemistry 27, 1297-1300, 1988
A;Title: Purification and properties of proteinase inhibitors from Erythrina corallodence A;Reference number: JA0142
A;Recession: JA0142
A;Accession: JA019
A;Residues: 1-20 <JOU>
 proteinase inhibitor DE-3 - coral tree (fragment)
C;Species: Erythrina corallodendron (coral tree)
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 09-Jul-2004
C;Accession: JA0142
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 A;Cross-references: UNIPROT:Q9R5U5; UNIPARC:UPI00000B6F94
C;Superfamily: flavodoxin; flavodoxin homology
C;Keywords: electron transfer; flavoprotein; FMN
F;5-20/Domain: flavodoxin homology (fragment) <FLX>
F;9-14/Region: FMN-phosphate binding #status predicted
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 C; Keywords: T-cell receptor
 R;Joubert, F.J
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Best Local :
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 / Match 17.7%;
Local Similarity 42.9%;
les 3; Conservative
 18 NNGATRO 24
 16 VLNNGAT 22
 10 NTGKTRK 16
 10 FNYAEQF 16
 9
 6 YKYRQQF 12
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 4; Conservative
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 VVQNGGT 15
 Conservative
 17.7%;
57.1%;
 17.7%;
57.1%;
 Score 22; DB 2; Le
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1; Mismatches 2;
 Score 22; DB 2; Le
Pred. No. 5.2e+03;
2; Mismatches 2;
 1; Mismatches
 Score 22; DB 2;
Pred. No. 5.8e+03;
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 Length 20;
 Length 18;
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C;Species: Raphanus sativus (radish)
C;Date: 27-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 31-Dec-2004
C;Accession: D42842
R;Terras, F.R.; Schoofs, H.M.; De Bolle, M.F.; Van Leuven, F.; Rees, S.B.; Vanderleyden, J. Biol. Chem. 267, 15301-15309, 1992
J. Firster, F. Schoofs of two novel classes of plant antifungal proteins from radish (Raphanus A;Reference number: A42842; MUID:92348373; PMID:1639777
A;Accession: D42842
A;Status: preliminary
 A;Note: sequence extracted from NCBI backbone (NCBIP:109925) C;Superfamily: Alpha amylase inhibitor
 A; Molecule type: protein
A; Residues: 1-20 < TER>
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 A; Experimental source: seed
 A; Cross-references: UNIPROT: Q9S8Y7; UNIPARC: UPI00000A93E6
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QGPQQRPPLLQQCCNN 17
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 17.7%;
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 Score 22; DB 2;
Pred. No. 5.8e+03;
2; Mismatches 9
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Search completed: January 26, 2006, 08:05:01

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Maximum DB
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 9 borrelia bu
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9 haemophilus
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1 rattus sp.,
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 conditions (By similarity).

-!- SUBUNIT: Oligomer of 14 subunits composed of to 7 subunits (By similarity).

-!- INDUCTION: By heat shock.
-!- SIMILARITY: BELONGS TO THE CHAPERONIN (HSP60) |
GO; GO:0005524; F:ATP binding; IEA.
GO; GO:0005497; P:protein folding; IEA.
GO; GO:0006485; P:proponse to unfolded protein; IEA.
GO; GO:0006986; P:response to unfolded protein; IEA.
GO; GO:0006986; P:response to unfolded protein; IEInterPro; IPR001844; Chaprnin Cpn60.
PROSITE; PS00296; CHAPERONINS CPN60; PARTIAL.
ATP-binding; Chaperone; Heat shock.
NON_TER

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 NUCLEOTIDE SEQUENCE.

Hall N., Karras M., Raine J.D., Carlton J.M., Kooij T.W.A.,

Hall N., Karras M., Janssen C.S., Pain A., Christophides G.K.,

Berriman M., Florens L., Janssen C.S., Pain A., Christophides G.K.,

James K., Rutherford K., Harris B., Harris D., Churcher C.,

Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,

Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kafatos F.C.,

Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.,

"A comprehensive survey of the Plasmodium life cycle by genomic,

transcriptomic, and proteomic analyses.";

Science 307:82-86 (2005).

Science 307:82-86 (2005).

-I- CAUTION: The sequence shown here is derived from an

EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
 Q4YIK5
 Browne N., Dowds B.C.A., Swiss-Prot. Submitted (JUL-2001) to Swiss-Prot. -i- PUNCTION: Prevents misfolding and promotes the refolding and proper assembly of unfolded polypeptides generated under stress
 01-OCT-2001 (TrEMBLrel. 18, 01-OCT-2001 (TrEMBLrel. 18, 01-OCT-2003 (TrEMBLrel. 25,
 13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
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ORFNames=PB402455.00.0;
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 Bacillus cereus
 Bacillus cereus.
Bacteria; Firmicutes;
 P83074
 P83074_BACCE
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 Hypothetical protein.
 preliminary data.
EMBL; CAAI01004758; CAI02160.1; -;
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Eukaryota; Alveolata; Apicomplexa;
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MEDLINE=96195148; PubMed=8660304;
MEDLINE=96195148; PubMed=8660304;
 Hellanthus annuus (Common sunflower).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; aster
campanulids; Asterales; Asteraceae; Asteroideae; Hellantheae;
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STRAIN=ATCC 17023 / 2.4.1 / NCIB
MEDLINE=96349111; PubMed=8760918;
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 Oleosin (Fragment)
 Q9S8A2_HELAN
Q9S8A2;
 Gong L., Kaplan S.; "Translational control of
 NCBI_TaxID=1063;
 Rhodobacter sphaeroides (Rhodopseudomonas sphaeroides).
Bacteria; Proteobacteria; Alphaproteobacteria; Rhodobac
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 "Purification and characterization of oil-bodies (oleosomes) body boundary proteins (oleosins) from the developing cotylec sunflower (Helianthus annuus L.)."; Biochem J. 314:333-337(1996)
 Millichip M., Stobart A.K.;
 "R.sphaeroides genes
Submitted (MAR-1999)
 McGlynn P.;
 NUCLEOTIDE SEQUENCE.
STRAIN=ATCC 17023 /
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 sphaeroides 2.4.1."
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 NCBI_TaxID=4232;
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Hall N., Karras M., Raine J.D., Carlton J.M., Kooij T.W.A.,
Hall N., Karras M., Florens L., Janssen C.S., Pain A., Christophides G.K.,
Berriman M., Florens L., Janssen C.S., Pain A., Christophides G.K.,
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,
Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kafatos F.C.
Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.;
"A comprehensive survey of the Plasmodium life cycle by genomic,
transcriptomic, and proteomic analyses.";
Science 307:82-86(2005)
 13-SEP-2005 (TrEMBLrel. 31, Creat
13-SEP-2005 (TrEMBLrel. 31, Last
13-SEP-2005 (TrEMBLrel. 31, Last
Hypothetical protein (Fragment).
ORFNames=PB105963,00.0;
 Plasmodium berghei.
Eukaryota; Alveolata;
 Hypothetical protein.
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 This Swiss-Prot entry is copyright. It is produced through a collaboration -
 Choudhary M., Kaplan S.;
"DNA sequence analysis of the photosynthesis region of Rhodobacter sphaeroides 2.4.1.";
Nucleic Acids Res. 28:862-867(2000).
-!- FUNCTION: Involved in the transcriptional regulation of pufB.
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STRAIN-ATCC 17023 / 2.4.1 / NCIB 8253 / DSM 158;
MEDLINE-20115911; Pubmed-10648776; DOI=10.1093/nar/28.4.862;
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Carlton J.M., Angiuoli S.V., Suh B.B., Kooij T.W., Pertea M.,

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Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L.,

Peterson J.D., Pop M., Kosack D.S., Shumway M.F., Bidwell S.L.,

Shallom S.J., van Aken S.E., Riedmuller S.B., Feldblyum T.V.,

Cho J.K., Quackenbush J., Sedegah M., Shoaibi A., Cummings L.M.,

Plorens L., Yates J.R. III, Raine J.D., Sinden R.E., Harris M.A.,

Cunningham D.A., Preiser P.R., Bergman L.W., Valva A.B.,

van Lin L.H., Janse C.J., Waters A.P., Smith H.O., White O.R.,

Salzberg S.L., Venter J.C., Fraser C.M., Hoffman S.L., Gardner M.
 01-MAR-2004
01-MAR-2004
 MEDLINE=2225706; PubMed=12368865; DOI=10.1038/nature01099; Carlton J.M., Angiuoli S.V., Suh B.B., Kooij T.W., Pertea M., Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L., Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L., Peterson J.D., Pop M., Kosack D.S., Shumway M.F., Bidwell S.L., Shallom S.J., van Aken S.E., Riedmuller S.B., Feldblyum T.V., Shallom S.J., van Aken S.E., Riedmuller S.B., Feldblyum T.V., Cho J.K., Quackenbush J., Sedegah M., Shoaibi A., Cummings L.M., Florens L., Yates J.R. III, Raine J.D., Sinden R.E., Harris M.A., Cunningham D.A., Preiser P.R., Bergman L.W., Valdya A.B., van Lin L.H., Janse C.J., Waters A.P., Smith H.O., White O.R., van Lin L.H., Janse C.J., Waters A.P., Smith H.O., White O.R., Valdya S.L., Venter J.C., Fraser C.M., Hoffman S.L., Gardner M.J.,
"Genome sequence and comparative analysis of the model parasite Plasmodium yoelii yoelii."; Nature 419:512-519(2002).
 Q7RKZ7 PLAYO PRELIMINARY;
Q7RKZ7;
 Plasmodium yoelii yoelii.
Eukaryota; Alveolata; Api
 Plasmodium yoelii yoelii.
Eukaryota; Alveolata; Api
 01-MAR-2004 (TYEMBLrel. 26, Created)
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Hypothetical protein (Fragment).
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01-MAR-2004 (TrEMBLrel. 2,
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 NUCLEOTIDE SEQUENCE
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 EMBL; AABL01002064; EAA18352.1; -;
 Nature 419:512-519(2002).
 "Genome sequence and comparative analysis of the model rodent malaria parasite Plasmodium yoelii yoelii.";
 NUCLEOTIDE SEQUENCE.
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01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Coat protein; NCBI gi: 553004 (Fragment).
Bacteriophage MS2.
 05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
55-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Borrelia burgdorferi plasmid cp32-7, possible parti
complete cds. (Fragment).
Borrelia burgdorferi (Lyme disease spirochete).
 Bacteria; Spirochaete
Borrelia burgdorferi
NCBI_TaxID=139;
 Q7BVD5_BORBU
Q7BVD5;
 Hypothetical protein. NON_TER 1
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EMBL; AABL01000761; EAA22236.1; -;
 Stevenson B., Casjens S., Rosa P.;
"Evidence of past recombination events
Erp antigens of Borrelia burgdorferi.";
Microbiology 144:1869-1879(1998).
 MEDLINE=98361033; PubMed=9695920;
 Plasmid cp32-7
 SEQUENCE
 Capsid protein.
 EMBL; M25187; AAA32258.1; -; HSSP; P03612; IMSC.
 protein gene and the intercistronic region."; Nature New Biol. 241:99-101(1973).
 Contreras R.R., Ysebaert M., Jou W.M., Fier
"Bacteriophage Ms2 RNA: nucleotide sequence
 MEDLINE=73163785; PubMed=4512458;
Contreras R.R., Ysebaert M., Jou W.M.,
 Viruses; ssRNA positive-strand viruses, Levivirus; Levivirus subgroup I.
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Meanteur D., Gletsu N., Pattus F., Buckley J.T.;

"Purification of Aeromonas hydrophila major outer-membrane
N-terminal sequence analysis and channel-forming properties
Mol. Microbiol. 6:3355-3363(1992).

SEQUENCE 20 AA; 2458 MW; EEDFCB4EEDC66D00 CRC64;
 01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-JUN-2002 (TrEMBLrel. 21, Mitogenic factor (Fragment).
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Yutsudo T., Murai H., G
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 Plasmid.
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 Bacteria; Proteobacteria;
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 PubMed=1644200; DOI=10.1016/0014-5793(92)81043-L; H., Gonzalez J., Takao T., Shimonishi Y., Takeda Y.,
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James K., Rutherford
 Plasmodium berghei.
Eukaryota; Alveolata;
 This Swiss-Prot entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBI the European Bioinformatics Institute. There are no restrict
 -:- SUBLEALAUMAN LOCATION: Cytoplasmic (By similarity).
-!- INDUCTION: By heat shock and primary alcohols.
-!- SIMILARITY: Belongs to the heat shock protein 90 family.
 Electrophoresis 20:781-789(1999).
 Benndorf D., Loffhagen N., Babel Winduction of heat shock proteins Acinetobacter calcoaceticus ";
 Acinetobacter calcoaceticus.
Bacteria; Proteobacteria; Gammaproteobacteria;
Moraxellaceae; Acinetobacter.
 Hall N.,
 NUCLEOTIDE SEQUENCE.
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InterPro; IPR001404; Hsp90.
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DOI=10.1002/(SICI)1522-2683(19990101)20:4/5<781::AID-ELPS781>3.0.CO;2-A;
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 NCBI_TaxID=471;
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 Hall N., Karras
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 Plasmodium chabaudi.
Eukaryota; Alveolata;
 Hypothetical protein (FORFNames=PC405777.00.0;
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 01-MAY-2000 (TrEMBLrel. 13, Last sequence update) 01-JUN-2002 (TrEMBLrel. 21, Last annotation updat Membrane-bound acid phosphatase (Fragment).
 Q9TWY2_LEIME
Q9TWY2;
 EMBL;
 NCBI_TaxID=5825;
 SEQUENCE
 Menz B., Winter G., Ilg T., Lottspeich F., Overath P., "Purification and characterization of a membrane-bound phosphatase of Leishmania mexicana.";
 PROTEIN SEQUENCE.
MEDLINE=91312388; Pubmed=1857378; DOI=10.1016/0166-6851(91)90152-V;
 Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J., Bidwell S.L., Rajandream M.A., Carucci D.J., Yates J.R., Kafatos Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S., "A comprehensive survey of the Plasmodium life cycle by genomic."
 NUCLEOTIDE SEQUENCE.
 NCBI_TaxID=5665;
 Eukaryota;
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SEQUENCE 18 AA; 22
 transcriptomic, and proteomic analyses."; Science 307:82-86(2005).
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, CAAI01000075; CAH93662.1;
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 Biochem. Parasitol. 47:101-108(1991).
rPro; IPR000560; HisAc_phsphtse.
 PF00328; Acid_phosphat_A;
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 Quail M.A., Ormond D., boggett J., Trueman H.E., Mendoza J., Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kafatos Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S., "A comprehensive survey of the Plasmodium life cycle by genomic, transcriptomic, and proteomic analyses.";
 Hall N., Karras M., Raine J.D., Carlton J.M., Kooij T.W.A., Berriman M., Florens L., Janssen C.S., Pain A., Christophides G. James K., Rutherford K., Harris B., Harris D., Churcher C., Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J., Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kafatos Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S., "A comprehensive survey of the Plasmodium life cycle by genomic,"
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Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium
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 transcriptomic, and proteomic analyses.";
Science 307:82-86(2005).
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13-SEP-2005 (TrEMBLrel. 31, Last annotation updat
Hypothetical protein (Fragment).
ORFNames=PC101630.00.0;
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; aster lamilds; Solanales; Solanaceae; Solanum.
NUCLEOTIDE SEQUENCE.
Hall N., Karras M., Raine J.D., Carlton J.M., Kooij T.W.A.,
Berriman M., Florens L., Janssen C.S., Pain A., Christophid
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.
Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kaf
Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden
 Q4Y571 PLACH PRELIMINARY;
Q4Y571;
 Rommelaere H., Van Troys M., Gao Y., Melki
Vandekerckhove J., Ampe C.;
"Eukaryotic cytosolic chaperonin contains
seven related subunits.";
 01-MAY-2000 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
Chaperonin (Fragment).
 01-MAY-2000
01-MAY-2000
 Q9TRD8;
 SEQUENCE
 "Chloroplast DNA evolution in potato Theor. Appl. Genet. 81:13-20(1991). PIR; JQ2320; JQ2320.
 SEQUENCE
 Proc.
 Mammalia; Eutheria;
 Oryctolagus cuniculus (Rabbit).
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 NCBI_TaxID=4113;
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 Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Glires; Lagomorpha; Leporidae;
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MEDILINE-21539745; PubMed=11682035; DOI=10.1016/S0168-8278(01)00167-2;

Kagaya M., Kaneko S., Ohno H., Inamura K., Kobayashi K.;

"Cloning and characterization of the 5'-flanking region of human cytokeratin 19 gene in human cholangiocarcinoma cell line.";

J. Hepatol. 35:504-511(2001).

EMBL; AB045973; BA8407700.1; -; Genomic_DNA.
 Eukaryota; Matazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Mysticeti; Balaenopteridae; Balaenoptera.
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(Chloroplast DNA evolution in potate Theor. Appl. Genet. 81:13-20(1991).
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 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; aster lamiids; Solanales; Solanaceae; Solanum; Lycopersicon.
 in an African-American family.";
Hemoglobin 19:375-388(1995).
EMBL; S82767; AAD14420.1; -; Genomic_DNA.
HSSP; P02023; 1C7C.
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 NUCLEOTIDE SEQUENCE.
MEDLINE=96352914; PubMed=8718696;
Rahbar S., Nozari G., Forrest G.,
 Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homin
 "Global Population Structure of Blue Whales Balaenoptera musculus ssp Based on Nuclear Genetic Variation.";
Submitted (DEC-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; AY851160; AAW65802.1; -; Genomic_DNA.
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Kawagoe Y., Kikuta Y.;
 NCBI_TaxID=4081;
 Lycopersicon esculentum
 Beta-globin protein (Fragment).
Name=beta-globin;
 _TaxID=9606;
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GO; GO:0004067; F:asparaginase activity; IEA.
SEQUENCE 17 AA; 1703 MW; 9AEDD9691F7F0807 CRC64;
 PROTEIN SEQUENCE.
MEDLINE-92344803; PubMed=1368361; DOI=10.1016/0031-9422(92)83098-J;
LOUGH T.J., Chang K.S., Carne A., Monk B.C., Reynolds P.H.,
Farnden K.J.;
 match 20.2%; Score 25; DB 2; Local Similarity 60.0%; Pred. No. 9.2e+03; es 6; Conservative 0. Minmatch
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 This is one of a large number of peptides which have been synthesised of the basis of the amino acid sequences for the E2, E4, E7, L1 or L2 proteins of HPV 1, 5, 6, 8, 11, 16, 18, 31 and 33. The selection of peptide sequences was based on the assumption that an immunoreactive region might be situated in the same relative region of a protein from different HPV types. The peptides were used in diagnostic immunoassays
 BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
 Human BLyS binding scFv VH CDR3 SEQ ID 2216
 19-AUG-2002
 ABP46205
 ABP46205 standard;
 Sequence 20
 detect HPV-infection.
 Disclosure; Page 20; 72pp; English
 Diagnosis of human papilloma virus infection and PV-carrying tumours using synthetic peptide(s) to detect virus specific antigen-antibody
 WPI; 1991-369390/50
 11-MAY-1990;
 11-MAY-1990;
 28-NOV-1991.
 WO9118294-A.
 Synthetic
 squamous cell
 Immunopeptide derived from HPV11 E2 peptide
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21-MAR-2001;
25-MAY-2001;
antibody; B lymphocyte stimulator; BLyS; tumour necrosis factor; B cell proliferation; differentiation; scFv; myasthenia gravis;
 cytostatic, immunosuppressive, immunostimulant, immunomodulatory, antirheumatic and antiAIDS activity and can be used in vaccines to inhibit the expression and activity of BLyS. The antibodies bind to BLyS and so may be used to detect and quantitate the presence of BLyS in biological samples and may be used in this way to diagnose disease associated with aberrant expression of BLyS. They may also be administered to treat disease associated with aberrant BLyS expression and activity such as cancer, immune, and autoimmune disorders and and activity such as cancer, immune, and autoimmune disorders and
 immunosuppressive; immunostimulant; immunomodulatory; antirheumatic; antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency; systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS; common variable immunodeficiency; acquired immunodeficiency syndrome.
 11-MAR-2004
 Sequence 16
 diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis, immunodeficiency (e.g. common variable immunodeficiency (CVID) and acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
 tumour necrosis factor (TNF) super family and induces B cell proliferation and differentiation. The antibodies of the inv
 This invention describes novel antibodies that immunospecifically bind to B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
 Homo sapiens.
 scfV VHCDR3
 ADG97032 standard;
 Antibodies against B Lymphocyte Stimulating polypeptides, useful for diagnosis and treatment of cancers and immune disorders.
 Ruben SM,
 15-JUN-2001; 2001WO-US019110
 10-JAN-2002
 tumour necrosis factor; B cell proliferation;
 acquired immunodeficiency syndrome (
 WO200202641-A1
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 invention
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 HUMAN GENOME SCI INC.
CAMBRIDGE ANTIBODY TECHNOLOGY.
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 Page 2953; 3148pp; English.
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 2000US-0240816P.
2001US-0276248P.
2001US-0277379P.
2001US-0293499P.
 peptide that immunospecifically binds BLyS SeqID 2216
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 This invention relates to novel antibodies that immunospecifically bind CC to B lymphocyte stimulator (BLyS). The BLyS gene has been mapped to CC chromosome 13g34 and encodes a protein that is a member of the tumour CC necrosis factor superfamily and induces both in vivo and in vitro B cell proliferation and differentiation. Specifically, it refers to single CC chain antibody melecules (scrvs) derived, preferably, from the variable CC theavy CDR3 region that immunospecifically bind to a polypeptide, or CC fragment thereof, of either human, murine, rat or monkey BLyS. The CC present invention refers to the use of such antibodies in various methods CC for the detection, diagnosis and prognosis of diseases related to the CC such, these compositions are useful for identifying immune disorders CC including myasthenia gravis and multiple sclerosis, inflammatory CC disorders e.g. asthma and rheumatoid arthritis, infectious diseases such as AIDS and proliferative disorders including leukaemia, carcinoma and CC lymphoma. Accordingly, they can be described as exhibiting various
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 Sequence
 activities such as antirheumatic, antiarthritic, neuroprotective, antiinflammatory, antiasthmatic, antiallergic and cytostatic. Thi peptide sequence is a single chain antibody variable heavy CDR3 pehat immunospecifically binds BLyS of the invention.
 multiple sclerosis; asthma; rheumatoid arthritis; AIDS; leukaemia; carcinoma; lymphoma; antirheumatic; antiarthritic; neuroprotective; antiinflammatory; antiasthmatic; antiallergic; cytostatic.
 p53 polypeptide;
 MDM2-binding
 24-FEB-2003
 AAE30892;
 AAE30892 standard; peptide; 12
 Novel antibody that immunospecifically binds to a B lymphocyte stimulator (BLys), useful for detecting and treating diseases or disorders e.g. rheumatoid arthritis, asthma and leukemia.
 Unidentified
 cancer; ischaemia;
 Example 1; SEQ ID NO
 16-NOV-2001;
19-DEC-2001;
 (HUMA-) HUMAN GENOME SCI INC.
 14-NOV-2002;
 WO2003055979-A2
 1
 9 YVLHYYL 15
 5
 Similarity
 16
 YTMHYYL 17
 Barash SC,
 ₹
 Conservative
 motif #7, identified by phage-peptide display.
 2001US-0331469P.
2001US-0340817P.
 2002WO-US036496
 (first
 p300 polypeptide; cell cycle;
 cytostatic; vasotropic
 ent ry
 29.7%;
71.4%;
 Choi GH,
 394pp;
 Score 35; DB Pred. No. 84; 1; Mismatches
 Vaughan TJ,
 English
 7;
 ۲,
 cell
 Hilbert
 Length 16;
 Indels
 death; gene therapy;
 ņ
 CDR3 peptide
 0
 Gaps
 0,
 RESULT 5
ABP46248
 片
 5
 Best Local
Matches
 Query Match
 16-JUN-2000;
17-OCT-2000;
16-MAR-2001;
21-MAR-2001;
25-MAY-2001;
 The invention relates to a peptide for use in modulating the binding of p53 polypeptide to a p300 polypeptide. The new peptide is useful in modulating the binding of a p53 polypeptide to a p300 polypeptide. The peptide may be used to regulate the mammalian cell cycle or to induce or prevent cell death, for the treatment of cancer or ischaemia. The invention is useful in gene therapy. The present sequence is MDM2-binding motif, identified by phage-peptide display
 BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic; tumour necrosis factor; B cell proliferation; B cell differentiation; immunosuppressive; immunostimulant; immunomodulatory; antirheumatic; antiAlDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency; systemic lupus erythematosus; rheumatoid arthritis; CVID; AlDS; common variable immunodeficiency; acquired immunodeficiency syndrome.
 (HUMA-)
 WO200202641-A1
 19-AUG-2002
 ABP46248 standard; peptide; 16
 Sequence 12
 New peptide for modulating the binding polypeptide, useful for regulating the treatment of cancer or ischemia.
 Hupp
 13-FEB-2002;
 15-JUN-2001; 2001WO-US019110
 10-JAN-2002
 Homo sapiens.
 ABP46248
 WPI; 2003-018623/01
 13-FEB-2001; 2001GB-00003508
 22-AUG-2002
 WO200265134-A2
 (-DdXD)
 BLyS binding
 11
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 HUMAN GENOME
CAMBRIDGE ANT
 Similarity 6; Conser
 UNIV DUNDEE
 YTMHYYLNNGAT 22
 FPFHYYWDNIAT
 Dornan D;
 Fig
 ; 2000US-0212210P.
; 2000US-0240816P.
; 2001US-0276248P.
; 2001US-0277379P.
; 2001US-0293499P.
 8
 Conservative
 (first
 2002WO-GB000640
 7B; 87pp;
 ANTIBODY
 SCFV VH
 SCI
 entry)
 28.8%;
50.0%;
 English.
 CDR3
 TECHNOLOGY
 Score 34; DB
Pred. No. 88;
 B
 SEQ ID 2259
 Mismatches
 of p53 polypeptide to mammalian cell cycle :
 6
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Length 12 Indels

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Gaps

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ADG97075
ID ADG9
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 뭐
 5
 RESULT 6
 Query Match
 Matches
 antibody; B lymphocyte stimulator; BLyS; tumour necrosis factor; B cell proliferation; differentiation; scFv; myasthenia gravis; multiple sclerosis; asthma; rheumatoid arthritis; AIDS; leukaemia; carcinoma; lymphoma; antirheumatic; antiarthritic; neuroprotective;
 cytostatic, immunosuppressive, immunostimulant, immunomodulatory, antirheumatic and antiALDS activity and can be used in vaccines to inhibit the expression and activity of BLyS. The antibodies bind to BLyS and so may be used to detect and quantitate the presence of BLyS in biological samples and may be used in this way to diagnose disease associated with aberrant expression of BLyS. They may also be
 This invention describes novel antibodies that immunospecifically bind a Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the tumour necrosis factor (TNF) super family and induces B cell proliferation and differentiation. The antibodies of the invention have
 Novel antibody that immunospecifically binds to a B lymphocyte stimulator
 WPI; 2003-505530/47
 16-NOV-2001;
19-DEC-2001;
 14-NOV-2002;
 WO2003055979-A2
 Unidentified
 antiinflammatory;
 BCFV VHCDR3
 11-MAR-2004
 ADG97075
 ADG97075 standard; peptide;
 Sequence 16
 idministered to the standard and autoriminate standard arthritis, and activity such as cancer, immune, and autoriminate arthritis, diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis, immunodeficiency (cyID) and immunodeficiency (cyID) and immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent arthritish immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
 administered to treat diseases associated with aberrant BLyS expression and activity such as cancer, immune, and autoimmune disorders and
 Claim 2; Page 2960;
 WPI; 2002-114799/15
 Ruben
 10-JUL-2003
 (HUMA-) HUMAN GENOME
 Local
 invention
 SM,
 MS,
 11 YTMHYY 16
 9
 Similarity
5; Conser
 YVMHYY 14
 B against B Lymphocyte Stimulating and treatment of cancers and immun
 Barash
 Barash
 peptide that immunospecifically binds BLyS SeqID 2259
 A,
 Conservative
 2001US-0331469P.
2001US-0340817P.
 2002WO-US036496
 (first
 SC,
 SC,
 antiasthmatic;
 3148pp;
 entry
 28.8%;
 SCI INC.
 Choi
 Choi GH,
 Score 34; DB
Pred. No. 1.2e
0; Mismatches
 16
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 English.
 Œ,
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 Vaughan T,
 Vaughan TJ,
 DB 5;
1.2e+02;
 ating polypeptides, useful for the immune disorders.
 Hilbert
 Hilbert
 Length 16;
 Indels
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 Gaps
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 Matches
 Query Match
Best Local
 chain antibody molecules (scFvs) derived, preferably, from the variable chain antibody molecules (scFvs) derived, preferably, from the variable heavy CDR3 region that immunospecifically bind to a polypeptide, or fragment thereof, of either human, murine, rat or monkey BLyS. The present invention refers to the use of such antibodies in various methods for the detection, diagnosis and prognosis of diseases related to the aberrant expression or inappropriate function of BLyS or its receptor. As such, these compositions are useful for identifying immune disorders including myasthenia gravis and multiple sclerosis, inflammatory disorders e.g. asthma and rheumatoid arthritis, infectious diseases such as AIDS and proliferative disorders including leukaemia, carcinoma and lymphoma. Accordingly, they can be described as exhibiting various activities such as antirheumatic, antiarthritic, neuroprotective, antiinflammatory, antiasthmatic, antiallergic and cytostatic. This peptide sequence is a single chain antibody variable heavy CDR3 peptide that the process of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable heavy CDR3 peptide that the control of the chain antibody variable that the control of the chain antibody variable that the chain antibody variable that the chain antibody variable that the chain antibody that the chain antibody
 Diagnosis of human papilloma virus infection and PV-carrying using synthetic peptide(s) to detect virus specific antigen-complexes by immunoassay.
 Disclosure;
 cervical cancer; cervical intraepithelial neoplasia; CIN; wart; squamous cell carcinoma; ELISA; HPV 18.
 AAR15580 standard;
 Sequence 16
 WPI; 1991-369390/50
 Dillner J,
 11-MAY-1990;
 11-MAY-1990;
 28-NOV-1991.
 Synthetic
 02-MAR-1992
 AAR15580
 that immunospecifically binds BLyS of
 (BLys), useful for detecting rheumatoid arthritis, asthma
 (MEDS-) MEDSCAND
 Immunopeptide derived
 11 YTMHYY 16
 9
 Similarity
5; Conserv
 YVMHYY 14
 A,
 Dillner L,
 Page
 Conservative
 (first entry)
 90SE-00001705
 ID NO
 90SE-00001705
 39; 72pp; English
 protein;
 28.8%;
 2259; 394pp;
 from HPV18 E2 peptide
 Cheng
 20
 0
 and treating diseases and leukemia.
 Score 34; DB 7;
Pred. No. 1.2e+02;
 Ξ
 B
 Mismatches
 the invention.
 Length 16;
 Indels
 or disorders
 antigen-antibody
 0
 Gaps
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This is one of a large number of peptides which have been synthesised

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 Query Match
Best Local
 Matches
 02-SEP-1997;
01-MAY-1998;
04-NOV-1998;
 Yacoby-Zeevi O,
Ayal-Hershkovitz
Friedmann Y;
 Targeted drug delive useful for treating
 Targeted drug delivery; inflammatory disorder; wound; scar; vasculopathy; autoimmune disorder; cancer; angiogenesis; metastatic disease; atherosclerosis; restenosis; aneurysm; solid cancer; non-solid cancer; haematopoietic malignancy; lymphocytic leukaemia; myelogenous leukaemia;
 18-NOV-2004
 the basis of the amino acid sequences for the E2, E4, E7, L1 or L2 proteins of HPV 1, 5, 6, 8, 11, 16, 18, 31 and 33. The selection of proteins escences was based on the assumption that an immunoreactive region might be situated in the same relative region of a protein from different HPV types. The peptides were used in diagnostic immunoassays detect HPV-infection. See AAR15523-R15601
 (YACO/)
(PERE/)
(MIRO/)
 Sequence
 WPI; 2004-625084/60
 (SHLO/)
 19-FEB-2003;
22-AUG-2003;
 28-NOV-2003; 2003US-00722502
 US2004170631-A1
 Homo sapiens
 Hodgkin's disease;
human; heparanase;
 ADR88216 standard;
 FEIN/)
 (AYAL/)
 cancer,
 ۳
 VAN GELDER J M.
VLODAVSKY I.
FRIEDMANN Y.
 4
 PERETZ T
MIRON D.
 FEINSTEIN E
 AYAL-HERSHKOVITZ
 PECKER I.
 SHLOMI Y.
 YACOBY-ZEEVI O.
 Similarity 6; Conserv
 drug delivery to a heparanase-expressing tissue of a patient, or treating heparanase-associated conditions such as inflammation r, comprises administering a drug and an anti-heparanase antibody
 20
 NKDNCMTYVAWDSVYYM
 DEXNVXXYVLYTMHYYL 17
 97US-00922170.
98US-00071739.
98US-00186200.
2003US-00368044.
2003US-00645659.
 ₹
 Conservative
 (first entry)
 Z,
 epitope
 Peretz T,
 enzyme; epitope
 multiple myeloma; haemangiosarcoma;
 peptide;
 28.8%;
 Feinstein
 3
 Miron D, S
 20
 Score 34;
Pred. No.
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 Mismatches
 Shlomi Y,
n Gelder JM,
 . 1.6e+02;
. 7;
 DB 2;
 Length 20
 Pecker I;
, Vlodavsky I;
 E4,
The
 immunoassays to
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 Gaps
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Claim 7;

SEQ

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10,

58pp; English

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ADT78183
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 CC diagnosting, preventing or treating conditions associated with heparanase CC catalytic activity (e.g. an inflammatory disorder, wound, scar, CC vasculopathy, an autoimmune disorder, cancer, angiogenesis, cell. CC proliferation, invasion of circulating tumour cells and metastatic CC disease), for purifying heparanase, or for developing drugs for those CC heparanase-associated conditions. The vasculopathy is atherosclerosis, cell cancer or a nearysm. The cancerous condition is a solid cancer or a cCC non-solid cancer. The non-solid cancer is a haematopoietic malignancy CC selected from acute lymphocytic leukaemia (ALL), chronic myslogenous CC leukaemia, chronic lymphocytic leukaemia (ALL), chronic myslogenous CC leukaemia (CML), myelodysplastic syndrome (MDS), mast cell leukaemia, cCC modgkin's disease, non-fodgkin's lymphomas, Burkitt's lymphoma and CC modgkin's disease, non-fodgkin's lymphomas, Burkitt's lymphoma and CC coral cavity, pharynx, larynx, paranasal sinuses, major salivary glands, CC thyroid gland, oesophagus, stomach, small intestine, colon, colorectum, CC vasina, carcinoma and malignant melanoma of the skin, breast, vulva, CC vasina, cervix uteri, ovary, fallopian tube, gestational trophoblastic CC tumours, penis, prostate, testis, kidney, renal pelvis, ureter, urinary CC bladder, urethra, carcinoma of the eyelld, carcinoma of the conjunctiva, certinoblastoma, carcinoma of the conjunctiva, melignant melanoma of the conjunctiva, spinal cord, vascular system, haemangiosacroma and Kaposi's CC sarcoma. The present sequence is human heparanase epitope.
 Matches
 Query Match
 02-SEP-1997;
01-MAY-1998;
04-NOV-1998;
19-FEB-2003;
 Antibody; epitope; heparanase; pathological condition; angiogenicell proliferation; cancerous condition; tumour cell invasion; metastatic disease; heparanase-related disorder; inflammatory dwound; scar; vasculopathy; autoimmune condition; renal disease;
 The invention relates to a method of targeted drug delivery to a tissue of a patient, the tissue expressing heparanase. The method comprises providing a complex of a drug directly or indirectly linked to an antiheparanase antibody, and administering the complex to the patient. In the targeted drug delivery, the antibody comprises an antibody or its portion capable of specifically binding to at least one epicope of a heparanase protein. The composition and methods of the invention are useful for
 US2004213789-A1
 Homo
 cytostatic;
 Functional peptide epitope
 ADT78183;
 ADT78183 standard; peptide;
 22-AUG-2003; 2003US-00645659
 28-OCT-2004 . .
 13-JAN-2005
 Local
 sapiens
 14 HYYLN-NGATR 23
 4
 8; Conserv
 HYYLNGRTATR
 14
 antiinflammatory;
immunosuppressive;
 Æ,
 Conservative
 (first entry)
 present sequence
 98US-00186200
 97US-00922170
 28.4%;
72.7%;
 14
 of human heparanase, pep10
 14
 Score 33.5; I
Pred. No. 1.3e
0; Mismatches
 0
 vulnerary; antiarteriosclerotic;
; nephrotropic; antidiabetic; hum
 is human heparanase
 33.5; DB 8;
No. 1.3e+02;
ismatches 2;
 Length 14;
 epitope
 Indels
 angiogenesis;
 1;
 disorder;
 Gaps
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AEA42432
ID AEA
XX
AC AEA
AC AEA
XX
DT 28--
XX
DB Hum
XX
KW ant
KW ant
KW inf
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 S
 RESULT 10
 subject, (c) a method for monitoring the state of a heparanase-related disorder or condition in a subject, and (d) a pharmaceutical composition comprising the isolated anti-heparanase antibody or antibody portion and a pharmaceutical carrier. The antibody, methods, and composition are useful for detecting, treating, preventing or monitoring a pathological condition, e.g. angiogenesis, cell proliferation, a cancerous condition (blood, breast, bladder, rectum, stomach, cervix, ovarian, colon, renal, or prostate cancer), minor cell proliferation, invasion of circulating tumour cells, or a metastatic disease, or a heparanase-related disorder or condition, e.g. an inflammatory disorder, wound, scar, vasculopathy (atheroseis, restenosis, or aneurym), autoimmune condition, or renal disease or disorder (diabetic nephropathy, glomerulosclerosis, renal change nephrotic syndrome, minimal change nephrotic syndrome, or a renal cell carcinoma) in a mammal. This sequence represents a functional peptide
 Query Match
Best Local
 Matches
 The invention relates to an isolated antibody or antibody portion capable of specifically binding to or elicited by at least one epitope of a heparanase protein, where the heparanase protein is at least 60% homologous to any of the 6 sequences given as SEQ ID NOS: 1-5 or 11, and where at least one epitope comprises a sequence at least 70% homologous to any of the sequences given as SEQ ID NOS: 6-10. Also disclosed are (a) a hybridoma cell line comprising a cell line for producing the monoclonal antibody, (b) a method for detecting, treating or preventing a pathological condition or a heparanase-related disorder or condition in a
antibody; heparanase; antiinflammatory; vulnerary; in
antiangiogenic; cytostatic; antiarteriosclerotic; vas
inflammation; wound healing; scarring; vasculopathy;
 (PERE/)
(MIRO/)
(SHLO/)
(PECK/)
(AYAL/)
 Human heparanase epitope peptide SEQ ID NO:10.
 28-JUL-2005
 AEA42432
 AEA42432 standard; peptide;
 Sequence 14
 Claim 67;
 detecting, treating
 WPI; 2004-774790/76.
 Ayal-Hershkovitz M,
 Yacoby-Zeevi O,
 (FEIN/)
 (FRIE/)
 14
 4
 Similarity
8; Conserv
 VLODAVSKY I. FRIEDMANN Y.
 FEINSTEIN E.
GELDER J M V.
 of human heparanase.
 AYAL-HERSHKOVITZ
 PECKER I.
 YACOBY-ZEEVI O
 MIRON D
 HYYLN-NGATR 23
 HYYLNGRTATR
 , treating or preventing cancer, inflammatory or autoimmune wound, atherosclerosis, restenosis, or diabetic nephropathy
 SEQ ID NO 10; 68pp; English.
 Ą,
 Conservative
 (first entry)
 monoclonal anti-heparanase antibodies, useful for ing or preventing cancer, inflammatory or autoimmu
 Peretz T, Mir
M, Feinstein
 28.4%;
72.7%;
 3
 14
 0
 Miron D, Shlomi Y,
ein E, Gelder JMV,
 Score 33.5; DB 8;
Pred. No. 1.3e+02;
0; Mismatches 2;
 B
 Vlodavsky
 Length 14;
 Pecker I;
 vasotropi
 immunosuppressive;
 autoimmune disease;
 1;
 Gaps
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RESULT 11
ADU70841
ID ADU70
XX
AC ADU70
AC ADU70
XX
AC 10-FE
XX
XX
Humar
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KW enzym
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 Matches
 Query Match
 of specifically binding to an epitope of a heparanase protein. Also described: (1) a cell line (II) for producing a monoclonal antibody or its portion, comprising a cell line for producing (I); (2) a pharmaceutical composition comprising (I) and a carrier; and (3) an affinity medium (III) for binding human heparanase polypeptides, comprising (I) immobilized to a chemically inert, insoluble carrier. (I) useful for treating a subject suffering from a pathological condition, which involves administering (I) to the subject. (I) is useful for
 from inflammatory disorder, wound, scar, vasculopathy, autoimmune condition, anglogenesis, cell proliferation, cancerous condition, tumor cell proliferation, invasion of circulating tumor cells and metastatic disease. (I) is useful for detecting the presence of heparanase polypeptide in a sample. (I) is useful for detecting heparanase-related disease or condition in a subject such as vertebrate, preferably mammal e.g., human. The heparanase-related disorder or condition further includes renal disease or disorder chosen from diabetic nephrotic syndrome, minimal change nephrotic syndrome minimal change nephrotic syndrome and renal cell carcinoma. The present sequence represents a human from and renal cell carcinoma. The present sequence represents a human from and renal cell carcinoma.
 Novel isolated antibody capable of specifically binding to epitope of heparanase protein, useful for preventing and treating heparanase-related disorder such as inflammatory disorder, scars, autoimmune conditions or
 Vlodavsky I, Pecker
Shlomi Y, Peleg Y,
 08-APR-2004; 2004AU-00201462
 10-FEB-2005
 Sequence
 which involves administering (I) to the subject. (I) is useful for preventing and treating heparanase-related disorder or condition chosen
 Claim 7;
 Feinstein E;
 08-APR-2004; 2004AU-00201462
 06-MAY-2004
 ADU70841 standard;
 heparanase epitope
 The invention
 angiogenesis disorder; cancer; tumor; metastasis; epitope
 (HADA-)
 Local
 14 HYYLN-NGATR 23
 4
 INSIGHT BIOPHARMACEUTICALS LTD HADASIT MEDICAL RES SERVICES &
 Similarity
8; Conserv
 14
 SEQ ID NO 10; 260pp; English
 HYYLNGRTATR
 Ä
 Conservative
 (first entry)
 relates to an isolated antibody or its portion (I) capable
 peptide; 15
 peptide, which
 14
 I, Mimon M, G
Yacoby-Zeevi O,
 RES SERVICES & DEV LTD
 0
 Score 33.5; DB 9; Pred. No. 1.3e+02;
 Mismatches
 is used
 Gilboa A, Miron D, M
D, Ayal-Hershkovitz M,
 DB 9;
 in the
 Length 14;
 exemplification of the
 Indels
 Moskowitz
 Ben-Artzi
 ۲.
 Gaps
 Ξ,
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enzyme; heparinase; vaccine; human leukocyte antigen; HLA;

Human heparanase peptide SEQ ID NO:526

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RESULT 12
ADU71059
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 S
 Query Match
Best Local S
Matches 8
WPI; 2005-014847/02.
 enzyme; heparinase; vaccine; immunostimulant; cytostatic;
 Human heparanase peptide SEQ ID NO:744.
 10-FEB-2005
 ADU71059;
 ADU71059 standard; peptide; 15
 The invention relates to a novel heparanase peptide that binds to a human leukocyte antigen (HLA) molecule, where the peptide is a nonapeptide, or its functional derivative. A peptide of the invention has immunostimulant and cytostatic activity, and is used in a vaccine. The heparinase peptide is useful for preparing a medicament which induces an immune response or for treating metastatic tumors. The present sequence represents a heparinase peptide of the invention.
 New heparanase nonapeptide that binds to a human leukocyte antigen (HLA) molecule or its functional derivative, useful for preparing a medicament for inducing an immune response or for treating metastatic tumors.
 Schirrmacher V,
 19-MAY-2003; 2003EP-00011038
 24-NOV-2004.
 EP1479764-A1
 Sequence
 Disclosure; SEQ ID NO 526; 269pp; English.
 Schirrmacher V,
 19-MAY-2003; 2003EP-00011038
 WPI; 2005-014847/02
 19-MAY-2003; 2003EP-00011038
 19-MAY-2003;
 24-NOV-2004
 immunostimulant; cytostatic; immune disorder; metastasis.
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 (DEKR-)
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 DEUT
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 Similarity
 HYYLN-NGATR 23
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 HYYLNGRTATR 13
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nilarity 72.7%;
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 KREBSFORSCHUNGSZENTRUM
HEIDELBERG RUPRECHT-KAI
 HEIDELBERG
 KREBSFORSCHUNGSZENTRUM
 2003EP-00011038
 Beckhove
 Beckhove
 RUPRECHT-KARLS
 RUPRECHT-KARLS.
 ָט,
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 0
 Score 33.5; D
Pred. No. 1.4e
0; Mismatches
 human leukocyte antigen; HLA; immune disorder; metastasis.
 Sommerfeldt
 Sommerfeldt N;
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 DB 9;
.4e+02;
hes 2;
 Length 15;
 Indels
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 Gaps
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ADU71060
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 RESULT 13
 Query Match
Best Local S
Matches 8
 The invention relates to a novel heparanase peptide that binds to a human leukccyte antigen (HLA) molecule, where the peptide is a nonapeptide, or its functional derivative. A peptide of the invention has immunostimulant and cytostatic activity, and is used in a vaccine. The heparinase peptide is useful for preparing a medicament which induces an immune response or for treating metastatic tumors. The present sequence represents a heparinase peptide of the invention.
 New heparanase nonapeptide that binds to a human leukocyte antigen (HLA) molecule or its functional derivative, useful for preparing a medicament for inducing an immune response or for treating metastatic tumors.
 The invention relates to a novel heparanase peptide that binds to a human leukocyte antigen (HLA) molecule, where the peptide is a nonapeptide, or its functional derivative. A peptide of the invention has immunostimulant and cytostatic activity, and is used in a vaccine. The heparinase peptide is useful for preparing a medicament which induces an immune response or for treating metastatic tumors. The present sequence represents a heparinase peptide of the invention.
Sequence 15
 Disclosure; SEQ ID NO 745; 269pp; English.
 WPI;
 Schirrmacher V,
 EP1479764-A1
 Homo sapiens
 enzyme; heparinase; vaccine;
immunostimulant; cytostatic;
 Human heparanase
 ADU71060 standard; peptide; 15 AA.
 Sequence
 New heparanase nonapeptide that binds to a human leukocyte antigen (HLA) molecule or its functional derivative, useful for preparing a medicament for inducing an immune response or for treating metastatic tumors.
 (DEKR-) DEUT
(UYHE-) UNIV
 19-MAY-2003;
 19-MAY-2003; 2003EP-00011038
 24-NOV-2004.
 10-FEB-2005
 ADU71060;
 Disclosure;
 14
 S
 8; Conserv
 15
 HYYLN-NGATR 23
 HYYLNGRTATR
Ä
 A
 SEQ ID NO 744;
 Conservative
 KREBSFORSCHUNGSZENTRUM.
HEIDELBERG RUPRECHT-KARLS.
 2003EP-00011038
 (first entry)
 Beckhove
 peptide
 28.4%;
72.7%;
 SEQ
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עי
 269pp; English.
 ,.
 IJ
 Score 33.5; DB 9;
Pred. No. 1.4e+02;
0; Mismatches 2
 human leukocyte antigen; immune disorder; metastas
 Sommerfeldt
 NO:745
 2
 Length
 Indels
 HLA;
 15;
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 Gaps
 1;
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Query Match

28.4%;

Score 33.5;

DB 9;

Length

15;

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ADU7
 RESULT
ADDT127
ID T127
 RESULT 15
ADU70927
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 Query Match
Best Local S
Matches 8
 Best Local Similarity
Matches 8; Conserv
 The invention relates to a novel heparanase peptide that binds to a human leukocyte antigen (HLA) molecule, where the peptide is a nonapeptide, or its functional derivative. A peptide of the invention has immunostimulant and cytostatic activity, and is used in a vaccine. The heparinase peptide is useful for preparing a medicament which induces an immune response or for treating metastatic tumors. The present sequence represents a heparinase peptide of the invention.
 New heparanase nonapeptide that binds to a human leukocyte antigen (HLA) molecule or its functional derivative, useful for preparing a medicament for inducing an immune response or for treating metastatic tumors.
 Human heparanase peptide SEQ ID NO:612
 10-FEB-2005
 ADU70927;
 ADU70927 standard; peptide; 15 AA
 Sequence 15
 Disclosure; SEQ ID NO 957; 269pp; English.
 WPI; 2005-014847/02.
 Schirrmacher V,
 19-MAY-2003; 2003EP-00011038
 19-MAY-2003; 2003EP-00011038
 24-NOV-2004.
 EP1479764-A1
 Homo
 enzyme; heparinase; vaccine; human leukocyte antigen; HLA;
 Human heparanase peptide
 10-FEB-2005
 ADU71272;
 ADU71272 standard; peptide; 15 AA
 immunostimulant;
 sapiens
 14
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 8; Conserv
 DEUT KREBSFORSCHUNGSZENTRUM.
UNIV HEIDELBERG RUPRECHT-KARLS.
 HYYLN-NGATR 23
 HYYLNGRTATR 14
 HYYLN-NGATR
 HYYLNGRTATR
 Ä
 Conservative
 Conservative
 (first entry)
 (first
 Beckhove P,
 cytostatic; immune disorder; metastasis.
 entry)
 11
 23
 28.4%;
 72.78;
 SEQ
 0
 Pred. No. 1.4e+02;
0; Mismatches 2;
 Score 33.5; DB 9;
Pred. No. 1.4e+02;
0; Mismatches 2;
 ID NO:957
 Sommerfeldt
 Length 15;
 Indels
 Indels
 ۲,
 Gaps
 Gaps
 1;
 1.
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RESULT 16
ADY27047
ID ADY27
XX ADY27
XX ADY27
XX O5-MA
XX Hepax
XX Hepax
KW neuro
KW neuro
KW hepax
KW hepax
XX Synth
XX 12-AU
PR 11-AU
PR 11-J-J
XX
XX (INSI
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 Best Loc
Matches
 Query Match
 Heparanase; cancer; neoplasm; inflammation; cardiovascular disease; neurological disease; viral infection; infection; cytostatic; antiinflammatory; cardiovascular-gen.; neuroprotective; virucide; heparanase modulator; enzyme purification.
 The invention relates to a novel heparanase peptide that binds to a human leukocyte antigen (HLA) molecule, where the peptide is a nonapeptide, or its functional derivative. A peptide of the invention has immunostimulant and cytostatic activity, and is used in a vaccine. The heparinase peptide is useful for preparing a medicament which induces an immune response or for treating metastatic tunors. The present sequence represents a heparinase peptide of the invention.
 New heparanase nonapeptide that binds to a human leukocyte antigen (HLA) molecule or its functional derivative, useful for preparing a medicament
 14-AUG-2003; 2003US-0494800P.
12-JAN-2004; 2004US-0535492P.
 Heparanase inhibitor
 05-MAY-2005
 ADY27047;
 Sequence
 Schirrmacher V,
 enzyme; heparinase; vaccine; human leukocyte antigen; HLA; immunostimulant; cytostatic; immune disorder; metastasis.
 12-AUG-2004; 2004WO-IL000744
 ADY27047 standard; peptide; 15 AA.
 WPI; 2005-014847/02
 19-MAY-2003; 2003EP-00011038
 19-MAY-2003; 2003EP-00011038
 EP1479764-A1
 24-FEB-2005
 WO2005016227-A2
 for inducing an immune response or for treating metastatic tumors.
 (UYHE-)
 24-NOV-2004
 (INSI-) INSIGHT BIOPHARMACEUTICALS LTD
 DEKR-)
 Local Similarity hes 8; Conserv
 14
 N
 DEUT KREBSFORSCHUNGSZENTRUM.
UNIV HEIDELBERG RUPRECHT-KARLS.
 15
 HYYLN-NGATR
 HYYLNGRTATR
 AA;
 SEQ ID NO
 Conservative
 (first entry)
 Beckhove P,
 peptide
 23
 28.4%;
72.7%;
 612; 269pp; English.
 0
 #6.
 Score 33.5; DB 9;
Pred. No. 1.4e+02;
0; Mismatches 2
 Sommerfeldt
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 9
 Length 15,
 Indels
 1;
 Gaps
 1;
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RESULT 17
ADU70969
ID ADU70
XX ADU70
XX ADU70
XX ADU70
XX ADU70
XX Humar
XX Homo
XX Homo
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 binding protein-associated disease or disorder in a subject, a
composition for use in the treatment of a heparanase-
associated disease or disorder comprising a therapeutic amount of an
egent capable of modulating heparanase activation and a pharmaceutical
carrier or diluent, a method of identifying a protease activator of
heparanase, a protease substrate mimetic comprising a peptide
representing a subset or all substrate residues or cleavage sites of
human heparanase or an equivalent non-human heparanase, a method of
producing active heparanase and a method of modulating an adhesion
cactivity of heparanase. The composition and methods are useful for
modulating heparanase activation and for treating heparanase-associated
diseases or disorders such as cancer, inflammation, cardiovascular
diseases, neurological diseases or viral infections. This sequence
represents a heparanase inhibitor peptide used in the scope of the
 Query Match
Best Local :
 Matches
 enzyme; heparinase; vaccine;
immunostimulant; cytostatic;
 New heparanase nonapeptide that
 19-MAY-2003; 2003EP-00011038
 24-NOV-2004
 EP1479764-A1
 Human heparanase peptide SEQ ID NO:654
 10-FEB-2005
 ADU70969 standard; peptide; 15
 Sequence 15
 Regulating heparanase activity, useful for treating heparanase-associated diseases (e.g. cancer, inflammation, cardiovascular diseases, neurological diseases or viral diseases) comprises modulating heparanase
 Van-Gelder
 19-MAY-2003; 2003EP-00011038
 heparanase activity comprising modulating heparanase activation. The invention also relates to methods of treating a heparanase- or heparin
 tissue or regulating a heparanase activity con
 Claim 56; SEQ
 (DEKR-)
 14 HYYLN-NGATR 23
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 DEUT
 Similarity 72. 8; Conservative
 HYYLNGRTATR
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 (first entry)
 KREBSFORSCHUNGSZENTRUM
 HEIDELBERG
 ID NO 21; 211pp; English
 Beckhove
 28.4%;
 15
 to a method of regulating heparanase activity in a biological process depending at least in part or
 RUPRECHT-KARLS
 human leukocyte antigen; HLA; immune disorder; metastasis.
 Score 33.5; DB 9;
Pred. No. 1.4e+02;
0; Mismatches 2;
 Sommerfeldt
 ₿
 binds
to a human leukocyte antigen
 z
 Length
 Indels
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 in part ion. The
 Gaps
 (ALLA)
 9
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Query Match Best Local S Matches 6

Similarity 6; Conserv

28.0%;

Score 33; DB 9; Pred. No. 1.7e+02; 1; Mismatches 4

Length 15;

0

Gaps

0

Sequence

15

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RESULT 18
ADU71114
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 á
 FFXGXCCCCCCXXX
 Query Match
Best Local S
Matches 6
 its functional derivative. A peptide of the invention has immunostimuland cytostatic activity, and is used in a vaccine. The heparinase peptis useful for preparing a medicament which induces an immune response for treating metastatic tumors. The present sequence represents a heparinase peptide of the invention.
 New heparanase nonapeptide that binds to a human leukocyte antigen (HLA) molecule or its functional derivative, useful for preparing a medicament for inducing an immune response or for treating metastatic tumors.
 The invention relates to a novel heparanase peptide that binds to a human leukocyte antigen (HLA) molecule, where the peptide is a nonapeptide, or its functional derivative. A peptide of the invention has immunostimulant and cytostatic activity, and is used in a vaccine. The heparinase peptide is useful for preparing a medicament which induces an immune response or for treating metastatic tumors. The present sequence represents a heparinase peptide of the invention.
 The invention relates
 Disclosure; SEQ ID NO
 WPI; 2005-014847/02.
 Schirrmacher V,
 (DEKR-)
 19-MAY-2003; 2003EP-00011038
 24-NOV-2004.
 EP1479764-A1
 Homo
 enzyme;
 Human heparanase
 ADU71114 standard; peptide;
 Sequence 15 AA;
 Disclosure; SEQ ID NO 654; 269pp; English.
 molecule or its functional derivative, useful for preparing a medicament for inducing an immune response or for treating metastatic tumors.
 The invention relates to a novel heparanase peptide that binds to a human leukocyte antigen (HLA) molecule, where the peptide is a nonapeptide, or the functional derivative. A peptide of the invention has immunostimulant and cytostatic activity, and is used in a vaccine. The heparinase peptide
 19-MAY-2003; 2003EP-00011038
 10-FEB-2005
 ADU71114;
 immunostimulant;
 sapiens
 12
 5 TWHHYYLNGRT 15
 VIND
 Similarity 6; Conserv
 TMHYYLNNGAT
 Conservative
 KREBSFORSCHUNGSZENTRUM.
HEIDELBERG RUPRECHT-KARLS
 (first entry)
 Beckhove P,
 peptide
 3e; vaccine;
cytostatic;
 28.0%;
54.5%;
 22
 799; 269pp; English.
 SEQ ID NO:799
 15
 Score 33; DB 9;
Pred. No. 1.7e+02;
1; Mismatches 4
 human leukocyte antigen; HLA; immune disorder; metastasis.
 Sommerfeldt
 A
 Length 15
 0
 Gaps
 0
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12

TMHYYLNNGAT

22

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 Best Loc
Matches
 95. A large number of antibody variants containing randomised peptide inserts within the complementarity determining regions (CDRs) were prepared by phage display. Libraries were subjected to eight rounds of selection to isolate variants with an antigen binding affinity at least two-fold stronger than the binding affinity of parent antibody for the target VEGF antibody. The anti-VEGF antibody variants may be useful in diagnostic assays for detecting expression of VEGF in cells, tissue or serum. They may also be used in the prevention and treatment of neoplastic diseases such as breast cancer, lung cancer and retinoblastoma, and non-neoplastic diseases including rheumatoid retinoblastoma, and non-neoplastic diseases including rheumatoid
 Chen
 Antibody variants with higher binding affinity than native antibodies useful for diagnosis, prevention and treatment of neoplastic and non-neoplastic diseases comprises amino acid insertion in hypervariable
 cytostatic; antiarthritic; antipsoriatic; antidiabetic; antiinflammatory; antiarteriosclerotic; vascular endothelial growth factor; VEGF; breast cancer; lung cancer; retinoblastoma; rheumatoid arthritis; psoriasis; atherosclerosis; diabetic retinopathy;
 Sequence 17
 proliferative
 The present sequence is the randomised VH3 region of a variant of anti-
vascular endothelial growth factor (VEGF) antibody from phage library YC-
 Example 1; Page 58; 110pp; English
 18-NOV-1998;
 16-NOV-1999;
 25-MAY-2000
 WO200029584-A1
 Synthetic
 Homo sapiens.
 complementarity determining region; CDR
 Humanised; antibody variant; phage display; randomised library;
 Randomised VH3 sequence of anti-VEGF antibody variant Y0229-9.
 17-OCT-2000
 AAB06372;
 AAB06372 standard; peptide;
 (GETH) GENENTECH INC
 Local Similarity
les 5; Conserv
 14
w
 TWHHYYLNGRT 13
 HYYLNN 19
 Lowman HB,
 psoriasis, atherosclerosis, and diabetic and other
 B
 Conservative
 (first entry)
 retinopathies
 98US-0108945P
 99WO-US027153.
 83
83
 Muller Y;
 . 3 %
 17
 1;
 Score 33; DB 3;
Pred. No. 1.9e+02;
 Mismatches
 DB 3;
 0,
 Length 17;
 0
 Gaps
 0;
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AAB06379 ID AAB(

AAB06379 standard; peptide; 18

AAB06379;

RESULT 21

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RESULT 20
AAB06381
ID AAB066
XX AAB06
XX AAB06
XX AAB06
XX AAB06
XX Human
KW Cytoss
KW Antia
KW Compl)
XX Homo
OS Synth
XX Homo
OS Synth
XX Homo
OS Synth
XX I8-NU
PH 16-NU
XX 18-NU
PF 16-NU
XX 18-NU
PF 16-NU
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 Matches
 Query Match
Best Local
 The present sequence is the randomised VH3 region of a variant of antivascular endothelial growth factor (VEGF) antibody from phage library YC-5. A large number of antibody variants containing randomised peptide inserts within the complementarity determining regions (CDRs) were prepared by phage display. Libraries were subjected to eight rounds of selection to isolate variants with an antigen binding affinity at least two-fold stronger than the binding affinity of parent antibody for the target VEGF antibody. The anti-VEGF antibody variants may be useful in diagnostic assays for detecting expression of VEGF in cells, tissue or serum. They may also be used in the prevention and treatment of neoplastic diseases such as breast cancer, lung cancer and retinoblastoma, and non-neoplastic diseases including rheumatoid arthritis, psoriasis, atherosclerosis, and diabetic and other
 AAB06381 standard; peptide; 18
 Antibody variants with higher binding affinity than native antibodies useful for diagnosis, prevention and treatment of neoplastic and non-neoplastic diseases comprises amino acid insertion in hypervariable
 cytostatic; antiarthritic; antipsoriatic; antidiabetic; antiinfla antiarteriosclerotic; vascular endothelial growth factor; VEGF; breast cancer; lung cancer; retinoblastoma; rheumatoid arthritis; psoriasis; atherosclerosis; diabetic retinopathy;
 Randomised VH3 sequence of anti-VEGF antibody variant Y0239-8.
 17-OCT-2000
 Sequence 18
 complementarity
 proliferative retinopathies
 Claim 19; Page 59; 110pp; English
 region.
 18-NOV-1998;
 16-NOV-1999;
 25-MAY-2000
 WO200029584-A1
 Humanised; antibody variant; phage display; randomised library;
 (GETH) GENENTECH INC
 ,
M
 sapiens
 14
w
 Similarity 5; Conserv
 HYYLNNG
 ₽
X
 Conservative
 (first entry)
 98US-0108945P
 99WO-US027153
 determining region; CDR.
 Ë
 28.0%;
71.4%;
 Muller Y;
 Score 33; DB 3;
Pred. No. 2.1e+02;
 B
 Mismatches
 antidiabetic; antiinflammatory;
 Length 18;
 0,
 Gaps
 0
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RESULT 22
AAB05890
ID AAB05
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AC AAB05
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DT 17-OC
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KW Humar
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 Query Match
Best Local
 The present sequence is the randomised VH3 region of a variant of antivascular endothelial growth factor (VEGF) antibody from phage library YC-95. A large number of antibody variants containing randomised peptide inserts within the complementarity determining regions (CDRs) were prepared by phage display. Libraries were subjected to eight rounds of selection to isolate variants with an antigen binding affinity at least two-fold stronger than the binding affinity of parent antibody for the target VEGF antibody. The anti-VEGF antibody variants may be useful in diagnostic assays for detecting expression of VEGF in cells, tissue or serum. They may also be used in the prevention and treatment of retinoblastoma, and non-neoplastic diseases including rheumatoid arthritis, psoriasis, atherosclerosis, and diabetic and other proliferative retinopathies
Humanised; antibody variant; phage display; randomised library; cytostatic; antiarthritic; antipsoriatic; antidiabetic; antiinflammatory;
 Randomised
 AAB05890 standard; peptide; 18
 Sequence
 Example 1; Page 59; 110pp; English.
 Antibody variants with higher binding affinity than native antibodies useful for diagnosis, prevention and treatment of neoplastic and non-neoplastic diseases comprises amino acid insertion in hypervariable
 18-NOV-1998;
 16-NOV-1999;
 antiarteriosclerotic; vascular endothelial growth factor; VEGF; breast cancer; lung cancer; retinoblastoma; rheumatoid arthritis; psoriasis; atherosclerosis; diabetic retinopathy; complementarity determining recinc.
 17-OCT-2000
 WO200029584-A1
 Synthetic
 Humanised; antibody variant; phage display;
 25-MAY-2000
 Homo sapiens.
 (GETH) GENENTECH INC
 Local Similarity
les 5; Conserv
 14
 w
 18
 HYYLNNG 20
 Lowman HB,
 VH3 sequence of anti-VEGF antibody variant Y0261-4.
 VH3 sequence of anti-VEGF antibody variant Y0239-6.
 B
 Conservative
 (first entry)
 98US-0108945P
 99WO-US027153
 entry)
 28.0%;
 Muller Y;
 Score 33; DB
Pred. No. 2.1e
1; Mismatches
 2.1e+02;
 DB 3;
 randomised library
 Length 18;
 0
 Gaps
 0
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S
 Matches
 Query Match
Best Local
 The present sequence is the randomised VH3 region of a variant of antivascular endothelial growth factor (VEGF) antibody from phage library YC 98. A large number of antibody variants containing randomised peptide inserts within the complementarity determining regions (CDRs) were prepared by phage display. Libraries were subjected to eight rounds of selection to isolate variants with an antigen binding affinity at least two-fold stronger than the binding affinity of parent antibody for the target VEGF antibody. The anti-VEGF antibody variants may be useful in diagnostic assays for detecting expression of VEGF in cells, tissue or serum. They may also be used in the prevention and treatment of neoplastic diseases such as breast cancer, lung cancer and retinoblastoma, and non-neoplastic diseases including rheumatoid arthritis, psoriasis, atherosclerosis, and diabetic and other
 Antibody variants with higher binding affinity than native antibodies useful for diagnosis, prevention and treatment of neoplastic and non-neoplastic diseases comprises amino acid insertion in hypervariable
 Sequence 18
 arthritis, psoriasis, atherosclerosis, proliferative retinopathies
 Example 1; Page 60; 110pp; English
 WPI; 2000-387797/33
 antiarteriosclerotic; vascular endothelial growth factor; VEGF; breast cancer; lung cancer; retinoblastoma; rheumatoid arthritis; psoriasis; atherosclerosis; diabetic retinopathy; complementarity determining region; CDR.
 18-NOV-1998;
 16-NOV-1999;
 25-MAY-2000
 WO200029584-A1
 Synthetic
 Homo sapiens
 (GETH) GENENTECH INC
 14
 Similarity
5; Conserv
HYYLNNG 20
 Lowman HB,
 ξ
 Conservative
 98US-0108945P
 99WO-US027153
 28.0%;
71.4%;
 Score 33; DB 3;
Pred. No. 2.1e+02;
1; Mismatches 1
 Length 18;
 Indels
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 Gaps
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RESULT 23
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AAB06385 standard; peptide;

AAB06385;

17-OCT-2000 (first entry)

Randomised VH3 sequence of anti-VEGF antibody variant Y0261-2.

cytostatic; antiarthritic; antipsoriatic; antidiabetic; antiinflammatory; antiarteriosclerotic; vascular endothelial growth factor; VEGF; breast cancer; lung cancer; retinoblastoma; rheumatoid arthritis; psoriasis; atherosclerosis; diabetic retinopathy; Humanised; antibody variant; phage display; randomised complementarity determining region; CDR

Homo sapiens

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 S
 Query Match
Best Local
 The present sequence is the randomised VH3 region of a variant of antivascular endothelial growth factor (VBCF) antibody from phage library YC-95. A large number of antibody variants containing randomised peptide inserts within the complementarity determining regions (CDRs) were prepared by phage display. Libraries were subjected to eight rounds of selection to isolate variants with an antigen binding affinity at least two-fold stronger than the binding affinity of parent antibody for the target VEGF antibody. The anti-VEGF antibody variants may be useful in diagnostic assays for detecting expression of VEGF in cells, tissue or serum. They may also be used in the prevention and treatment of neoplastic diseases such as breast cancer, lung cancer and retinoblastoma, and non-neoplastic diseases including rheumatoid
 Human; 158P1H4; chromosome 8q220q23, 158P1F4; chromosome bladder cancer; immune response; cytotoxic T lymphocyte; human leukocyte antigen; helper T lymphocyte; HTL.
 Antibody variants with higher binding affinity than native antibodies useful for diagnosis, prevention and treatment of neoplastic and non-neoplastic diseases comprises amino acid insertion in hypervariable
22-AUG-2000; 2000US-0227098P
 22-AUG-2001; 2001WO-US026411.
 WO200216598-A2
 Homo sapiens.
 CTL epitope HLA peptide SEQ ID NO:401.
 17-JUN-2002
 ABB94872 standard; peptide; 9 AA
 Sequence 18 AA;
 arthritis, psoriasis, atherosclerosis, and diabetic proliferative retinopathies
 Example 1; Page 59; 110pp; English
 WPI; 2000-387797/33
 Chen YM,
 (GETH) GENENTECH INC
 18-NOV-1998;
 16-NOV-1999;
 WO200029584-A1
 Synthetic
 14 HYYLNNG 20
 w
 Similarity 71.
 Lowman HB,
 (first entry)
 98US-0108945P
 99WO-US027153
 28.0%;
 Score 33; DB
Pred. No. 2.1e
1; Mismatches
 2.1e+02;
 DB 3;
 Length 18
 0
 Gaps
 0
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RESULT 25
ADU70797
ID ADU70
XX ADU70
AC ADU70
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enzyme; heparinase; vaccine; human leukocyte antigen; HLA; immunostimulant; cytostatic; immune disorder; metastasis.

Human heparanase peptide SEQ ID NO:482

10-FEB-2005

(first entry)

ADU70797 standard;

peptide; 9 AA

19-MAY-2003; 2003EP-00011038

19-MAY-2003; 2003EP-00011038

24-NOV-2004

밁 5

N

YVLYSVH

8 YVLYTMH 14

Matches

Conservative

<u>ب</u>

Mismatches

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Indels

٥,

Gaps

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CC products in a biological sample from a patient who has or is suspected of cc products in a biological sample from a patient who has or is suspected of cc peroducts in a tissue sample from an individual, comparing the status of 158P1H4 (cc identifying the presence of aberrant 158P1H4 gene products in a normal sample, and cc identifying the presence of aberrant 158P1H4 gene products in the sample. CC identifying the polynucleotides may be used in monitoring genetic production. 158P1H4 polynucleotides may be used in assessing the status of 158P1H4 gene products in normal versus cancerous tissues and so celucidating the malignant phenotype, in generating and characterising domain-specific antibodies, for identifying agents or cellular factors that bind to 158P1H4 or its particular domain, and for generating cancer vaccines. Antibodies against 158P1H4 are useful in diagnostic and correct or lymphocyte (CTL) or helper I lymphocyte (HTL) responses, and corresponsitic area particularly useful in bladder cancer diagnostic and corresponse for chromosome 8q22. q23, and the 158P1H4 gene also described in 10cated to chromosome 8q22. q23, and the 158P1H4 gene also described in the present invention of the present invention of the present invention of the present invention of the present invention of the present invention of the present invention of the present invention.
 Query Match
Best Local
 Monitoring 158P1H4 gene products in biological sample from patient who has or is suspected of having cancer, useful for treating cancer, comprises identifying presence of aberrant 158P1H4 gene products in
 Sequence 9 AA;
 biological sample.
 WPI; 2002-269357/31.
 10-APR-2001; 2001US-0282739P
 The present invention describes a method for monitoring 158P1H4 gene
 Claim 64; Page 155; 209pp; English
 (AGEN-) AGENSYS INC.
Similarity 5; Conserv
 w w
 Jakobovits A;
 Hubert RS,
 27.1%;
71.4%;
 Score 32; DB 5;
Pred. No. 2e+06;
 Raitano AB,
 Afar DEH,
 Length 9;
 Levin
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Search completed: January 26, 2006, 07:58:01 Job time: 81.1207 secs
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 Ś
 Query Match 27.1%; Score 32; DB 9; Length 9; Best Local Similarity 100.0%; Pred. No. 2e+06; Matches 5; Conservative 0; Mismatches 0; Indels
 The invention relates to a novel heparanase peptide that binds to a human leukocyte antigen (HLA) molecule, where the peptide is a nonapeptide, or its functional derivative. A peptide of the invention has immunostimulant and cytostatic activity, and is used in a vaccine. The heparinase peptide is useful for preparing a medicament which induces an immune response or for treating metastatic tumors. The present sequence represents a heparinase peptide of the invention.
 New heparanase nonapeptide that binds to a human leukocyte antigen (HLA) molecule or its functional derivative, useful for preparing a medicament for inducing an immune response or for treating metastatic tumors.
 Sequence 9 AA;
 Claim 3; SEQ ID NO 482; 269pp; English.
 WPI; 2005-014847/02.
 Schirrmacher V, Beckhove P,
 (DEKR-) DEUT KREBSFORSCHUNGSZENTRUM. (UYHE-) UNIV HEIDELBERG RUPRECHT-KARLS.
 14 HYYLN 18
 4 HYYLN 8
 Sommerfeldt N;
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 Gaps
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Copyright (c) 1993 - 2006 Compugen Ltd
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116, ``

US-08-934-915-13

Sequence 13, Patent No. 5

GENERAL INFORMATION:

CORRESPONDENCE ADDRESS:

FLORIDA

```
Sequence 58, Application US/08934915 Patent No. 5932412
                                                         GENERAL INFORMATION:
APPLICANT: DILLNER, JOAKIM
APPLICANT: DILLNER, LENA
APPLICANT: CHENG, HWEE-MING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: U.S.A.
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: Windows 3.0
SOFTWADER. Mincome 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/934,915
FILING DATE: 22-SEP-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/949,836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: DILLNER, JOAKIM APPLICANT: DILLNER, LENA APPLICANT: CHENG, HWEE-MING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 813-538-3800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Microsoft Word 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: SYNTHETIC PEPTIDES OF HUMAN TITLE OF INVENTION: PAPILLOMAVIRUS 1, 5, 6, 8, TITLE OF INVENTION: 11, 16, 18, 31, 33 AND 56, TITLE OF INVENTION: USEFUL IN IMMUNOASSAY FOR TITLE OF INVENTION: DIAGNOSTIC PURPOSES NUMBER OF SEQUENCES: 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: MASON & ASSOCIATES, P.A. STREET: 17757 U.S. HWY. 19 NORTH, SUITE CITY: CLEARMATER
                                                                                                                                                                                                                                                                                                                     37.7%;
Local Similarity 62.5%;
es 10; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: LOUISE A. Foutch
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 813-538-3820
                                                                                                                                                                                                                                                                                         2 EXNVMXYVLYTMHYYL 17
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SYNTHETIC PEPTIDES OF HUMAN PAPILLOMAVIRUS 1, 5, 6, 8, 11, 16, 18, 31, 33 AND 56,
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Best Local Similarity
Watches 6; Conserve
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                                                                                                                                       US-09-440-781-44
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                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 44, Application US/09440781 Patent No. 6632926 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                       SEQ ID NO 44
LENGTH: 17
                                                             Matches
                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                           APPLICANT: Yvonne Man-yee Chen et al. TITLE OF INVENTION: ANTIBODY VARIANTS FILE REFERENCE: P14691. CURRENT APPLICATION NUMBER: US/09/440,781 CURRENT FILING DATE: 1999-11-16 NUMBER OF SEQ ID NOS: 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: U.S.A.
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: Windows 3.0
SOFTWARE: Microsoft Word 6.0
CURRENT APPLICATION DATA;
                                                                                                                                                                                                               TYPE: PRT ORGANISM: artificial sequence FEATURE:
                                                                                                                                                                         NAME/KEY: artificial LOCATION: 1-17
                                                                                                                                                       OTHER INFORMATION: variant CDR sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 19
TELECOMMUNICATION INFORMATION:
TELEPHONE: 813-538-3800
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/949,836
FILING DATE:
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: LOUISE A. Foutch
REGISTRATION NUMBER: 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                           Local Similarity hes 5; Conserv
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STREET: 17757 U.S. HWY. 19 NORTH, SUITE 500
CITY: CLEARWATER
STATE: FLORIDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/0
FILING DATE: 22-SEP-1997
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 14 HYYLNN 19
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                                                             Conservative
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                                                                             28.0%;
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                                                             1; Mismatches
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                                                                               Score 33; DB
Pred. No. 58;
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Pred. No. 48;
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                                                                                                 DB 2;
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FILING DATE:

RESULT 2 US-08-934-915-58

TITLE OF INVENTION: TITLE OF INVENTION:

INVENTION:

Gaps

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Matches Query Match , MOLECULE TYPE: peptide US-08-934-915-13

LENGTH: 20 amino TYPE: amino acid TOPOLOGY: linear

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RESULT 6
US-09-440-781-57
Sequence 57, Application US/09440781
Patent NO. 6632926
GENERAL INFORMATION:
APPLICANT: Yvonne Man-yee Chen et al.
TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1
CURRENT APPLICATION NUMBER: US/09/440,781
CURRENT FILING DATE: 1999-11-16
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; NAME/KEY: artificial
; LOCATION: 1-18
; OTHER INFORMATION: variant CDR sequence
US-09-440-781-51
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Best Local Similarity
Matches 5; Conserv
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CURRENT APPLICATION NUMBER: US/09/440,781
CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 99
SEQ ID NO 53
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Best Local Similarity
Matches 5; Conserv
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CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 99
SEQ ID NO 51
LENGTH: 18
TYPE: PRT
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GENERAL INFORMATION:
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Patent No. 66329
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TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1
                                                                                                                                                                                                                                                                                                                NAME/KEY: artificial LOCATION: 1-18
OTHER INFORMATION: variant CDR sequence
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                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT ORGANISM: artificial sequence
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                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                           28.0%;
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; Pred. No. 62;
1; Mismatches
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Pred. No. 62;
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US-09-440-781-65
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SEQ ID NO 57
LENGTH: 18
TYPE: PRT
               Query Match
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Best Local :
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    Local Similarity
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Local Similarity 71.4%;
es 5; Conservar;...
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3 HYYLKDG 9
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5; Conserve
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71.4%;
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; SEQ ID NO 65
; LENGTH: 17
; TYPE: PRT
; ORGANISM: artificial sequence
; FEATURE:
; NAME/KEY: artificial
; LOCATION: 1-17
; OTHER INFORMATION: variant CDR sequence
US-09-440-781-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 87

LENGTH: 18

TYPE: PRT

ORGANISM: artificial sequence
FEATURE:
NAME/KEY: artificial
LOCATION: 1-18
OTHER INFORMATION: variant CDR sequence
US-09-440-781-87
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; Sequence 87, Application US/09440781
; Patent No. 6632926
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NAME/KEY: artificial
LOCATION: 1-18
OTHER INFORMATION: variant CDR sequence
US-09-440-781-57
                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: YVONNE MAN-yee Chen et al.
TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1
CURRENT APPLICATION NUMBER: US/09/440,781
CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 99
                                                                                                                                                                                                                                                                                                                                                Sequence 65, Application US/09440781 Patent No. 6632926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/440,781
CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 99
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TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1
Score 32;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Mismatches
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Pred. No. 62;
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Pred. No. 62;
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85;
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US-10-395-434A-2
Sequence 2, Application US/10395434A
Patent No. 6939948
GENERAL INFORMATION:
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; TYPE: PRT
; ORGANISM: artificial sequence
; FEATURE:
; NAME/KEY: artificial
; LOCATION: 1-17
; LOCATION: 1-17
; OTHER INFORMATION: variant CDR sequence
US-09-440-781-84
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                                                                RESULT 11
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APPLICANT: YVONDE MAN-yee Chen et al.
TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1
CURRENT APPLICATION NUMBER: US/09/440,781
CURRENT FILING DATE: 1999-11-16
                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 99
SEQ ID NO 35
LENGTH: 18
TYPE: PRT
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SEQ ID NO 84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 84, Application US/09440781 Patent No. 6632926
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Best Local :
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FILE REFERENCE: P14691.
CURRENT APPLICATION NUMBER: US/09/440,781
CURRENT FILING DATE: 1999-11-16
APPLICANT: Ferrone, Soldano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Yvonne Man-yee Chen et al
                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: artificial
LOCATION: 1-18
                                                                                                                                                                                                                                                                                     ORGANISM: artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
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                                                                                                          HYYQNEG 9
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                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                     sequence
                                                                                                                                                                            27.1%;
71.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                              Score 32; DB
Pred. No. 91;
0; Mismatches
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PATENT NO. 663926

GENERAL INFORMATION:
APPLICANT: YVONNE MAN-yee Chen et al.
TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1
CURRENT APPLICATION NUMBER: US/09/440,781
CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 99
SEQ ID NO 73
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                                                                                                                                                                                                                                                                                               RESULT 13
US-08-934-915-7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/10/395,434A
CURRENT FILING DATE: 2003-03-24
PRIOR APPLICATION NUMBER: US 60/366,558
PRIOR FILING DATE: 2002-03-22
NUMBER OF SEQ ID NOS: 9
SEQ ID NO 2
                                                                                                                                                                                                                                                            Sequence 7, Application US/08934915 Patent No. 5932412
                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 73,
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: 03551.009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: GD2 Peptide Mimics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT ORGANISM: artificial sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: artificial
LOCATION: 1-17
OTHER INFORMATION: variant CDR sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 12
TYPE: PRT
ORGANISM: artificial sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: J8C peptide mimic for GD2
                                                                                                 APPLICANT: DILLNER, JOAKIM
APPLICANT: DILLNER, LENA
APPLICANT: CHENG, HWEE-MING
TITLE OF INVENTION: SYNTHETIC PEPTIDES OF HUMAN
TITLE OF INVENTION: PAPILLOMAVIRUS 1, 5, 6, 8,
TITLE OF INVENTION: 11, 16, 13, 33 AND 56,
TITLE OF INVENTION: USEFUL IN INMUNOASSAY FOR
TITLE OF INVENTION: DIAGNOSTIC PURPOSES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                  CORRESPONDENCE ADDRESS:
                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity hes 4; Conserv
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les 4; Conserv
                                STREET:
                                                ADDRESSEE:
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                CLEARWATER
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FLORIDA
                              E: MASON & ASSOCIATES, P.A.
17757 U.S. HWY. 19 NORTH, SUITE 500
                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                               11, 16, 18, 31, 33 AND 56, 8, USEFUL IN IMMUNOASSAY FOR DIAGNOSTIC PURPOSES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26.3%;
66.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Mismatches
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Pred. No. 1.8e+02;
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Pred. No. 83;
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COMPUTER READABLE FORM:

MEDIUM TYPE:

E: Floppy disk IBM PC compatible

COMPUTER: IBM PC

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RESULT 15
US-08-370-909-10
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                                                                                                                                                                                                                      ; LENGTH: 20
; TYPE: PRT
; ORGANISM: Pneumococcus
US-09-287-070-9
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 25.4%;
Best Local Similarity 50.0%;
Matches 6; Conservative
                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                SEQ ID NO 9
                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                           APPLICANT: Tuomanen, Elaine
APPLICANT: Gosink, Khoosheh
APPLICANT: Masure, Robert
TITLE OF INVENTION: IDENTIFICATION AND CHARACTERIZATION OF NOVEL
TITLE OF INVENTION: DIAGNOSTIC AND THERAPEUTIC USES THEREOF
FILE OF INVENTION: DIAGNOSTIC AND THERAPEUTIC USES THEREOF
FILE REFERENCE: 1340-1-024cip
CURRENT APPLICATION NUMBER: US/09/287,070A
CURRENT FILING DATE: 1999-04-06
EARLIER FILING DATE: 1999-04-06
EARLIER APPLICATION NUMBER: 09/196,389
EARLIER FILING DATE: 1998-11-19
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin Ver: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: LOUISE A. Foutch
REGISTRATION NUMBER: 37,133
REFERENCE/DOCKET NUMBER: 1946.6
TELECOMMUNICATION INFORMATION:
TELEPHONE: 813-538-3800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/949,836
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: Windows 3.0 SOFTWARE: Microsoft Word 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                  Local
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                                                                                                                                                                similarity 87.5%;
                                                                         YYLNANGA 17
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                                                                                                                                                                  Score 29.5; DB 2;
Pred. No. 2.7e+02;
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Pred. No. 2.
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                                                                                                                                                 Mismatches
                                                                                                                                                              2.7e+02;
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2.2e+02;
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                                                                                                                                                                                  Length 20;
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; LENGTH: 9
; TYPE: AMINO ACID
; STRANDEDNESS: UNKNOWN
; TOPOLOGY: UNKNOWN
; MOLECULE TYPE: PEPTIDE
US-08-370-909-10
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US-09-774-639-201
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                                                                                                                                APPLICANT: Rosen et al.
TITLE OF INVENTION: 90 Human Secreted Proteins
FILE REFERENCE: PZ013P1
CURRENT APPLICATION NUMBER: US/09/774,639
CURRENT FILING DATE: 2001-07-09
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/244,112
PRIOR FILING DATE: EARLIER FILING DATE: 1999-02-04
NUMBER OF SEQ ID NOS: 371
SOFTWARE: PALEURI PRIOR DATE: 1999-02-04
ENOTTWARE: PALEURI PRIOR DATE: DATE: 1999-02-04
SOFTWARE: PALEURI PRIOR DATE: 1999-02-04
LENCTH: 9
                                                                                                                                                                                                                                                                                                                                                    Patent No. 6806351
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                         Sequence 201,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local Similarity 66.7%;
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APPLICANT: ROBBINS, PAUL F.; ROSENBERG,
APPLICANT: STEVEN A.
TITLE OF INVENTION: p15 AND TYROSINASE
TITLE OF INVENTION: MELANOMA ANTIGENS A
TITLE OF INVENTION: AND THERAPEUTIC MET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (212) 751-684
TELEX: 421792
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: CAROL M. GRUPPI
REGISTRATION NUMBER: 37,341
REFERENCE/DOCKET NUMBER: 2026
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
NAME/KEY: SITE
LOCATION: (9)
OTHER INFORMATION: Xaa equals stop translation
                                                                  ORGANISM: Homo sapiens FEATURE:
                                                                                                         TYPE: PRT
                                                                                                                            ENGTH:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (212) 751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/370,909
FILING DATE: 10-JAN-1995
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 345 PARK AVENUE CITY: NEW YORK STATE: NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Conservative
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Pred. No. 4.6e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 9;
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Query Match
Best Local Similarity
Thes 5; Conserva
                                                                               ; LENGTH: 15
; TYPE: PRT
; ORGANISM: Artificial Sequence
; PEATURE;
; OTHER INFORMATION: Description
US-08-793-331-13
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US-08-793-331-13
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US-09-419-381-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 14
LENGTH: 12
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                EARLIER APPLICATION NUMBER: PCT/FR95/01116
EARLIER FILING DATE: 1995-08-24
EARLIER APPLICATION NUMBER: FR 94/10299
EARLIER FILING DATE: 1994-08-25
NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No. 6071877
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Best Local
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Best Local :
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APPLICANT: THIERY, ISABELLE
TITLE OF INVENTION: NEW POLYPEPTIDES HAVING A TOXIC ACTIVITY AGAINST
TITLE OF INVENTION: INSECTS OF THE DIFTERAE FAMILY
FILE REFERENCE: 0660-0116-0 PCT
CURRENT EPPLICATION NUMBER: US/08/793,331
CURRENT FILING DATE: 1997-05-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/99/419,381
CURRENT FILING DATE: 1999-10-15
PRIOR APPLICATION NUMBER: 60/104,465
PRIOR FILING DATE: 1998-10-16
NUMBER OF SEQ ID NOS: 122
COPTUBARY: 05-50-51
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                 Conservative
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                                                                                                  Description of Artificial Sequence: JEG66
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               Score 29; DB 2;
Pred. No. 2.3e+02
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Pred. No. 1.8e+02
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Pred. No. 4.6e+05;
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APPLICANT: Yvonne Man-yee Chen et al.
TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1
CURRENT APPLICATION NUMBER: US/09/440,781
CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 99
LENGTH: 17
TYPE: PRT
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US-09-440-781-92
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US-09-440-781-49
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                                             Sequence 92, Application US/09440781 Patent No. 6632926 GENERAL INFORMATION:
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APPLICANT: Yvonne Man-yee Chen et al.
TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1
CURRENT APPLICATION NUMBER: US/09/440,781
CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 85, Application US/09440781 Patent No. 6632926 GENERAL INFORMATION:
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LENGTH: 17
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Best Local
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APPLICANT: Yvonne Man-yee Chen et al. TITLE OF INVENTION: ANTIBODY VARIANTS FILE REFERENCE: P1469R1
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Pred. No. 2.7e+02;
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Pred. No. 2.7e+02;
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US-09-461-325-279
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US-09-461-325-279
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NAME/KEY: artificial
; LOCATION: 1-17
; OTHER INFORMATION: variant CDR sequence
US-09-440-781-92
Sequence 279, Application US/10012542
Patent No. 6627741
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: 94 Human Secreted Proteins
FILE REFERENCE: PZ02991
CURRENT APPLICATION NUMBER: US/10/012,542
CURRENT FILING DATE: 2001-12-12
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Best Local Similarity
Matches 5; Conserv
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SOFTWARE: PatentIn Ver. 2
SEQ ID NO 279
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Best Local
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GENERAL INFORMATION:
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EARLIER FILING DATE: 1998-06-16
EARLIER APPLICATION NUMBER: 60/089,508
EARLIER FILING DATE: 1998-06-16
EARLIER APPLICATION NUMBER: 60/089,509
EARLIER FILING DATE: 1998-06-16
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CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 99
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EARLIER APPLICATION NUMBER: 60/090,113
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EARLIER FILING DATE: 1998-06-16
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TYPE: PRT
ORGANISM: artificial sequence
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80.0%; Pred. No. 2.7e+0;
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-115-123-279
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-012-542-279
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Best Local
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Best Local Similarity
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TITLE OF INVENTION: 93 Human Secreted Prof
FILE REFERENCE: PE02930APID2
CURRENT APPLICATION NUMBER: US/10/115,123
CURRENT FILING DATE: 2002-04-04
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PRIOR FILING DATE: 1998-06-22
NUMBER OF SEQ ID NOS: 532
SOFTWARE: Patentin Ver. 2.0
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Pred. No. 2.8e+02;
2; Mismatches 1
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APPLICATION NUMBER: 60/089,507
DATE: 1998-06-16
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APPLICATION NUMBER: 60/090,113
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; Sequence 19, Application US/09178093B
; Patent No. 666086
; GENERAL INFORMATION:
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3: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

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ALIGNMENTS

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PRIOR APPLICATION NUMBER: 2003-01-16;
PRIOR APPLICATION NUMBER: 60/337,409
PRIOR FILING DATE: 2002-05-01
NUMBER OF SEQ ID NOS: 149
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 43
LENGTH: 20
TYPE: PRT
ORGANISM: Oryza sativa
US-10-346-198-43
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US-10-346-198-43
                                                                                                                                                           ; LENGTH: 16
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-880-748-2216
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2216, Application US/09880748
Publication No. US20030059937A1
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PF523
FILE REFERENCE: PF523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 43, Application US/10346198 Publication No. US20040043485A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 3239
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2216
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Best Local Similarity 63.6%;
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APPLICANT: JIANG, NING
APPLICANT: BAO, ZIHONG
APPLICANT: BAO, XIAOYU
APPLICANT: EDDY, SEAN R.
TITLE OF INVENTION: TRANSPOSABLE ELEMENTS IN RICE AND METHODS OF USE
FILE REFERENCE: 18465-0018
CURRENT APPLICATION NUMBER: US/10/346,198
CURRENT FILING DATE: 2003-01-16
                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: 60/277,379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
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PRIOR FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/293,499
PRIOR FILING DATE: 2001-05-25
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                                                                                               Score 35; DB 3;
Pred. No. 1.5e+02;
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                                                                                                                  Length 16;
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; ORGANISM: Homo sapiens
US-10-293-418-2216
                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-467-758-35
                                                                                                                                                                                                                                                                                                                                                APPLICANT: Hupp, Theodore
APPLICANT: Dornan, David
TITLE OF INVENTION: Screening Method and Agents
FILE REFERENCE: 9013.54
CURRENT APPLICATION NUMBER: US/10/467,758
CURRENT FILING DATE: 2003-08-13
PRIOR APPLICATION NUMBER: PCT/GB02/00640
PRIOR FILING DATE: 2002-02-13
PRIOR APPLICATION NUMBER: GB 0103508.8
PRIOR APPLICATION NUMBER: GB 0103508.8
PRIOR FILING DATE: 2001-02-13
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CURRENT FILING DATE: 2002-11-27
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: 60/340,817
PRIOR FILING DATE: 2001-12-19
PRIOR FILING DATE: 2001-12-19
PRIOR FILING DATE: 2001-06-15
PRIOR PRIOR PRIOR DATE: 2001-06-15
PRIOR PRIOR DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/293,499
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR APPLICATION NUMBER: 60/277,379
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PRIOR APPLICATION NUMBER: 60/277,379
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
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PRIOR FILING DATE: 2000-06-16
NUMBER OF SEQ ID NOS: 3247
SEQ ID NO 2216
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                                                                                                                                                                                                                                                    SEQ ID NO 35
LENGTH: 12
                                                                         Query Match 28.8%;
Best Local Similarity 50.0%;
Matches 6; Conservative
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Best Local Similarity
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NUMBER OF SEQ ID NOS: 43
SOFTWARE: Patentin version 3.1
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FILING DATE: 2000-10-17
11 YTMHYYLNNGAT 22
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                                                                                                      Score 34; DB 4; 1
Pred. No. 1.5e+02;
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Pred. No. 1.5e+02;
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US-09-880-748-2259
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PRIOR FILLING DATE: 2000-06-15
PRIOR PELICATION NUMBER: 60/240,816
PRIOR FILLING DATE: 2000-10-17
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILLING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILLING DATE: 2001-03-21
PRIOR FILLING DATE: 2001-03-21
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Best Local Similarity 83...
Thes 5; Conservative
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SEQ ID NO 2259
LENGTH: 16
                                                                                 SEQ ID NO 2259
                                                                                                      PRIOR APPLICATION NUMBER: 60/212,210 PRIOR FILING DATE: 2000-06-16 NUMBER OF SEQ ID NOS: 3247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS FILE REFERENCE: PF523P2 CURRENT APPLICATION NUMBER: US/10/293,418 CURRENT FILING DATE: 2002-11-27
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PRIOR FILING DATE: 2001-11-16
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CURRENT FILING DATE: 2001-06-15
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ORGANISM: Homo sapiens
0-293-418-2259
                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/277,379
                                                                                                                                                                                                                       FILING DATE: 2001-03-
                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/276,248
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                                                                                                                                                                                                  CATION NUMBER:
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. US20030223996A1
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Pred. No. 2.1e+02;
0; Mismatches 1
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Gaps

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NUMBER OF SEQ ID NOS: 38
SOFTWARE: PatentIn version 3.1
SEQ ID NO 36
LENGTH: 21
TYPE: PRT
ORGANISM: Homo sapiens
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US-10-086-814-36
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Publication No.
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SEQ ID NO 30
LENGTH: 21
TYPE: PRT
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Best Local (
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Best Local
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APPLICANT: Olson, William C.
TITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION
                                                                                                                                                                                                                     FILE REFERENCE: 61010-AB-1
CURRENT APPLICATION NUMBER: US/10/086,814
CURRENT FILING DATE: 2002-02-28
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                                              NAME/KEY: MOD_RES
LOCATION: (9)...(9)
OTHER INFORMATION: PHOSPHORYLATION
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LOCATION: (21)..(21)
OTHER INFORMATION: BIOTIN
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LOCATION: (13)..(13)
OTHER_INFORMATION: SULFATATION
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LOCATION: (9)..(9)
OTHER INFORMATION: SULFATATION
FEATURE:
NAME/KEY: MOD_RES
LOCATION: (13)..(13)
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Local Similarity 41.7%;
es 5; Conservative
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83.3%;
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Pred. No. 2.1e+02;
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Pred. No. 2.8e+02;
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RESULT 10
US-10-722-502-10
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Best Local Similarity
"---hes 5; Conserve
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                                                                                                                                                                                                                                                           APPLICANT: Yacoby-Zeevi, Oron
APPLICANT: Peretz, Tuvia
APPLICANT: Miron, Daphna
APPLICANT: Shlomi, Yinon
APPLICANT: Pecker, Iris
APPLICANT: Ayal-Hershkovitz, M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 147622
LENGTH: 21
TYPE: PRT
ORGANISM: Glycine max
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         SOFTWARE: PatentIn version 3.2
SEQ ID NO 10
LENGTH: 14
                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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Publication No. US20040170631A1
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APPLICANT: Kovalic David K
APPLICANT: Zhou Yihua
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21 (53223) 8
                                                                                                                        APPLICANT: Feinstein, Elena
APPLICANT: Van Gelder, Joel M.
APPLICANT: Vlodavsky, Israel
APPLICANT: Friedmann, Yael
TITLE OF INVENTION: HEPARANASE ACTIVITY NEUTRALIZING ANTI- HEPARANASE MONOCLONAL
TITLE OF INVENTION: ANTIBODY AND OTHER ANTI-HEPARANASE ANTIBODIES
FILE REFERENCE: 26872
                                                                  CURRENT APPLICATION NUMBER: US/10/722,502
CURRENT FILING DATE: 2003-11-28
NUMBER OF SEQ ID NOS: 11
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CURRENT FILING DATE: 2003-04-28
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TYPE: PRT
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                                                                                                                                                                                                                                                           Ayal-Hershkovitz, Maty
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Pred. No. 2.8e+02
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Pred. No. 2.8e+02
4; Mismatches
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; OTHER INFORMATION: Functional
US-10-722-502-10
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US-10-916-598-21
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                                                                              Sequence 21, Application US/10916598
Publication No. U320050042213A1
GENERAL INFORMATION:
APPLICANT: Van Gelder, Joel M.
APPLICANT: Miron, Daphna
TITLE OF INVENTION: 27413
FILE REFERENCE: METHODS AND PHARMACEUTICAL COMPOSITIONS FOR MODULATING HEPARANASE
ACTIVATION AND USES THERROF
CURRENT APPLICATION NUMBER: US/10/916,598
CURRENT APPLICATION UNMBER: US/10/916,598
CURRENT FILING DATE: 2004-08-12
NUMBER OF SEQ ID NOS: 37
SOFTWARE: PACENTIN version 3.2
SEQ ID NO 21
LENGTH: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: 26128
CURRENT APPLICATION NUMBER: US/10/645,659
CURRENT FILING DATE: 2003-08-22
NUMBER OF SEQ ID NOS: 11
SOFTWARE: Patentin version 3.2
SEQ ID NO 10
LENGTH: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: HEPARANASE ACTIVITY NEUTRALIZING ANTI- HEPARANASE MONOCLONAL TITLE OF INVENTION: ANTIBODY AND OTHER ANTI-HEPARANASE ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                LENGTH: 15
TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE: OTHER INFORMATION: Functional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial sequence
              OTHER INFORMATION: Synthetic peptide
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Miron, Daphna
Shlomi, Yinon
Pecker, Iris
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Friedmann, Yael
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72.7%;
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Pred. No. 2.2e
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Pred. No. 2.2e+02;
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; Sequence 44, Application US/10624153
; Publication No. US20040086502A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; LOCATION: 1-17
; OTHER INFORMATION: variant CDR sequence
US-10-624-153-44
                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/108,945
PRIOR FILING DATE: 1998-11-18
NUMBER OF SEQ ID NOS: 99
SEQ ID NO 51
LENGTH: 18
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 51, Application US/10624153 Publication No. US20040086502A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/10/624,153
CURRENT FILING DATE: 2003-07-21
PRIOR APPLICATION NUMBER: US 09/440,781
PRIOR FILING DATE: 1999-11-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/624,153
CURRENT FILING DATE: 2003-07-21
PRIOR APPLICATION NUMBER: US 09/440,781
PRIOR FILING DATE: 1999-11-16
PRIOR APPLICATION NUMBER: US 60/108,945
PRIOR FILING DATE: 1998-11-18
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APPLICANT: LOWMAN, HENRY B.
APPLICANT: MULLER, YUES
TITLE OF INVENTION: ANTIBODY VARIANTS
                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: P1469R1C1
                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: CHEN, APPLICANT: LOWMA
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EQ ID NO 44
    NAME/KEY: artificial LOCATION: 1-18
                                         FEATURE:
OTHER INFORMATION: sequence is synthesized
                                                                                               ORGANISM: artificial sequence
                                                                                                                                                                                                                                                                                                                                         PPLICANT: LOWMAN, HENRY B.
PPLICANT: MULLER, YVES
ITLE OF INVENTION: ANTIBODY VARIANTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: artificial
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ORGANISM: artificial sequence
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8; Conserv
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83.3%;
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Pred. No. 3.2e+02;
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Pred. No. 2.
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                                                                                           APPLICANT: CHEN, YVONNE M.
APPLICANT: LOWMAN, HENRY B.
APPLICANT: MULLER, YVES
TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1C1
CURRENT APPLICATION NUMBER: US/10/624,153
CURRENT FILING DATE: 2003-07-21
PRIOR APPLICATION NUMBER: US 09/440,781
PRIOR APPLICATION NUMBER: US 09/440,781
PRIOR APPLICATION NUMBER: US 09/440,781
PRIOR FILING DATE: 1999-11-16
PRIOR FILING DATE: 1999-11-16
PRIOR PPLICATION NUMBER: US 60/108,945
PRIOR FILING DATE: 1998-11-18
NUMBER OF SEQ ID NOS: 99
SEQ ID NO 57
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US-10-624-153-57
; Sequence 57, Application US/106:
; Publication No. US20040086502A1
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Best Local Similarity 71.4
Matches 5; Conservative
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Matches 5; Conservative
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CURRENT FILING DATE: 2003-07-21
PRIOR APPLICATION NUMBER: US 09/440,781
PRIOR FILING DATE: 1999-11-16
PRIOR APPLICATION NUMBER: US 60/108,945
PRIOR FILING DATE: 1998-11-18
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APPLICANT: MULLER, YVES
TITLE OF INVENTION: ANTIBODY VARIANTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: CHEN, YVONNE M. APPLICANT: LOWMAN, HENRY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
OTHER INFORMATION: sequence is synthesized
FEATURE:
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OTHER INFORMATION: sequence is synthesized
                                       ORGANISM: artificial sequence
                                                                                 ENGTH: 18
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Pred. No. 3.4e+02;
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Pred. No. 3.4e+02;
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APPLICANT: CHEN, YVONNE M.
APPLICANT: LOWMAN, HENRY B.
APPLICANT: MULLER, YVES
ITITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1C1
CURRENT APPLICATION NUMBER: US/10/624,153
CURRENT FILING DATE: 2003-07-21
PRIOR APPLICATION NUMBER: US 09/440,781
PRIOR APPLICATION NUMBER: US 60/108,945
PRIOR APPLICATION NUMBER: US 60/108,945
PRIOR FILING DATE: 1998-11-18
PRIOR FILING DATE: 1998-11-18
NUMBER OF SEQ ID NOS: 99
IENGTH: 18
TYPE: PRI
DECANTON.
            APPLICANT: HUBERT, RENE
APPLICANT: RATTANO, ARTHUR
APPLICANT: AFAR, DANIEL
APPLICANT: LEVIN, ELANA
APPLICANT: FARIS, MARY
APPLICANT: GE, WANGWAO
APPLICANT: GE, WANGWAO
APPLICANT: JAKOBOVITZ, AYA
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAM
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF
TITLE OF INVENTION: OTHER CANCERS
FILE REFERENCE: 51158-2003; 00
CURRENT APPLICATION NUMBER: US/09/935,384
CURRENT FILING DATE: 2001-08-22
CURRENT FILING DATE: 2001-08-22
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                                                                                                                                                                                                                                                                                                                                                            US-09-935-384-401
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Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                               Sequence 401, Application US/0935384 Publication No. US20030166526A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 87, App
Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                       APPLICANT: CHALLITA-EID, PIA
APPLICANT: HUBERT, RENE
APPLICANT: RAITANO, ARTHUR
PRIOR APPLICATION NUMBER: 60/227,098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PEATURE:
NAME/KEY: artificial
LOCATION: 1-18
OTHER INFORMATION: variant CDR sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: artificial sequence FEATURE:
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NAME/KEY: artificial
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Pred. No. 3.4e+02;
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OF BLADDER AND
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; TYPE: PRT; ORGANISM: Homo sapiens US-09-935-384-401
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US-09-880-748-2909
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US-10-293-418-2909
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CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
PRIOR TILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
PRIOR FILING DATE: 2000-10-17
PRIOR PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILING DATE: 2001-03-21
PRIOR FILING DATE: 2001-03-21
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NUMBER OF SEQ ID NOS: 783
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 401
LENGTH: 9
                                                                                                                                                                                                                                                                             Sequence 2909, Application US/10293418 Publication No. US20030223996A1 GENERAL INFORMATION:
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           APPLICANT: Ruben et al.

TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS

FILE REFERENCE: PF523P2

CURRENT APPLICATION NUMBER: US/10/293,418

CURRENT FILING DATE: 2002-11-27

PRIOR APPLICATION NUMBER: 60/331,469

PRIOR FILING DATE: 2001-11-16

PRIOR APPLICATION NUMBER: 60/340,817

PRIOR APPLICATION NUMBER: 60/340,817

PRIOR FILING DATE: 2001-06-15

PRIOR FILING DATE: 2001-06-15

PRIOR APPLICATION NUMBER: 60/293,499

PRIOR APPLICATION NUMBER: 60/293,499
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PRIOR FILING DATE: 2001-05-25
NUMBER OF SEO ID NOS: 3239
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PF523
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TYPE: PRT
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Local Similarity 33.3%;
les 4; Conservation
  FILING DATE:
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2001-05-25
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Pred. No. 4e+02;
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; PRIOR FILING DATE: 2000-10-17;
PRIOR APPLICATION NUMBER: 60/212,210;
PRIOR FILING DATE: 2000-06-16;
NUMBER OF SEQ ID NOS: 3247;
SEQ ID NO 2909;
LENGTH: 15;
TYPE: PRT
ORGANISM: Homo Bapiens
                                                                                                                                                                             US-10-624-153-65; Sequence 65, Application US/10624153; Publication No. US20040086502A1
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                    GENERAL INFORMATION:
APPLICANT: CHEN, YVONNE M.
APPLICANT: LOWMAN, HENRY B.
APPLICANT: MULLER, YVES
TITLE OF INVENTION: ANTIBODY VARIANTS
FILE REFERENCE: P1469R1C1
CURRENT APPLICATION NUMBER: US/10/624,153
CURRENT FILING DATE: 2003-07-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 104
LENGTH: 15
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Matches 6; Conserv
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Matches 4; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: CARTER, Graham
TITLE OF INVENTION: T-CELL EPITOPES
TITLE OF INVENTION: T-CELL EPITOPES
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PRIOR FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: 60/240,816
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Potential T-cell Epitopes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
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NT FILING DATE: 2003-07-21
APPLICATION NUMBER: US 09/440,781
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Pred. No. 4e+02;
0; Mismatches 2; Indels
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Pred. No. 4e+02;
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GENERAL INFORMATION:

APPLICANT: CHEN, YVONNE M.
APPLICANT: LOWMAN, HENRY B.
APPLICANT: MULLER, YVES
TITLE OF INVENTION: ANTIBODY VARIANTS

P1469R1C1

Sequence 35, Ap Publication No.

Application US/10624153 o. US20040086502A1

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RESULT 24
US-10-624-153-35
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APPLICANT: MULLER, YVES

PILE REFERENCE: P1469R1C1

CURRENT APPLICATION NUMBER: US/10/624,153

CURRENT APPLICATION NUMBER: US/10/624,153

CURRENT FILING DATE: 2003-07-21

PRIOR APPLICATION NUMBER: US 09/440,781

PRIOR FILING DATE: 1999-11-16

PRIOR APPLICATION NUMBER: US 60/108,945

PRIOR FILING DATE: 1998-11-18

NUMBER OF SEQ ID NOS: 99
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; LENGTH: 17
; TYPE: PRT
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                                                                                                                                     Matches
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Best Local Similarity
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Matches 5; Conserv
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PRIOR APPLICATION NUMBER: US 60/108,945
PRIOR FILING DATE: 1998-11-18
NUMBER OF SEQ ID NOS: 99
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                                                                                                                                                                                                                   OTHER INFORMATION: sequence is synthesized FEATURE:
REATURE:
NAME/KEY: artificial
LOCATION: 1-17
OTHER INFORMATION: variant CDR sequence
                                                                                                                                                                                                                                                                                                       LENGTH: 17
TYPE: PRT
ORGANISM: artificial sequence
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                                                                   3 HYYLN
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71.4%;
                                                                                                                                                   27.1%; Score 32; 100.0%; Pred. No.
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Pred. No. 4.6e+02;
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US-09-880-748-2158
Sequence 2158, Application US/09880748
| Publication No. US20030059937A1
| GENERAL INFORMATION:
| APPLICANT: Ruben et al.
| TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
| FILE REFERENCE: PF523
| CURRENT PEPLICATION NUMBER: US/09/880,748
| CURRENT FILING DATE: 2001-06-15
| PRIOR APPLICATION NUMBER: 60/212,210
| PRIOR APPLICATION NUMBER: 60/240,816
| PRIOR APPLICATION NUMBER: 60/240,816
| PRIOR APPLICATION NUMBER: 60/276,248
| PRIOR APPLICATION NUMBER: 60/276,248
| PRIOR APPLICATION NUMBER: 60/277,379
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| PRIOR APPLICATION NUMBER: 60/277,379
| PRIOR APPLICATION NUMBER: 60/293,499
| PRIOR APPLICATION 
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CURRENT FILING DATE: 2003-07-21
PRIOR APPLICATION NUMBER: US 09/440,781
PRIOR FILING DATE: 1999-11-16
PRIOR FILING DATE: 1999-11-18
NUMBER OF SEQ ID NOS: 99
SEQ ID NO 35
LENGTH: 18
TYPE: PRT
ORGANISM: artificial sequence
FEATURE:
OTHER INFORMATION: sequence is synthesized
Search completed: January 26, 2006, 08:38:36
Job time: 75.75 secs
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Matches 5; Conservative
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LOCATION: 1-18
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3: /cgn2-6/ptodata/1/pubpas/USO7_NEW_PUB.pep:*

4: /cgn2-6/ptodata/1/pubpas/PCT_NEW_PUB.pep:*

5: /cgn2-6/ptodata/1/pubpas/USO7_NEW_PUB.pep:*

6: /cgn2-6/ptodata/1/pubpas/USO7_NEW_PUB.pep:*

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PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
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Matches 5
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Publication No. US2005025532A1
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically
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SEQ ID NO 2216
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Publication No. US20050255532A1
GENERAL INFORMATION:
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CURRENT APPLICATION NUMBER: US/11/054,515
CURRENT FILING DATE: 2005-02-10
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PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR APPLICATION NUMBER: 60/331,469
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CURRENT APPLICATION NUMBER: US/11/054,515
CURRENT FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
PRIOR FILING DATE: 2004-02-11
PRIOR FILING DATE: 2004-02-11
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TITLE OF INVENTION: Ant
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FILING DATE: 2001-11-16
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APPLICATION NUMBER: 60/340,817
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; Pred. No. 5.3;
1; Mismatches
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US-11-045-024-10532
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5.3;
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Sequence 10532, A
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; ORGANISM: Homo sapiens US-11-054-515-2259
RESULT 4
US-10-511-559-256
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CURRENT APPLICATION NUMBER: US/10/511,559
CURRENT FILING DATE: 2004-10-15
PRIOR APPLICATION NUMBER: PCT/EP03/04063
PRIOR FILING DATE: 2003-04-17
PRIOR APPLICATION NUMBER: EP 02008712.8
PRIOR FILING DATE: 2002-04-18
PRIOR FILING DATE: 2002-04-18
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR FILING DATE: 2003-03-24
NUMBER OF SEQ ID NOS: 1147
NUMBER OF SEQ ID NOS: 1147
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                                                                                                                                                                                                                                                                                 SEQ ID NO 255
LENGTH: 13
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Best Local :
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                                                                                                                                               Query Match
Best Local Similarity
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APPLICANT: BAKER, Matthew
APPLICANT: CARR, Francis,
                                                                                                                                                                                                                                                                                                                  SOFTWARE: FastSEQ for Windows Version 4.0
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Remaining Prior Application data removed
NUMBER OF SEQ ID NOS: 3247
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PRIOR APPLICATION NUMBER: 60/276,248
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                 OTHER INFORMATION: Potential Epitope of human Factor VIII
                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                     TYPE: PRT
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nes 5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/880,748 FILING DATE: 2001-06-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 2001-12-19
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                                                                YLNNGPQR 12
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Pred. No. 7.6;
0; Mismatches
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Pred. No. 13;
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GENERAL INFORMATION:
APPLICANT: JONES, Tim
APPLICANT: BAKER, Mat
APPLICANT: CARR, Fran

BAKER, Matthew CARR, Francis,

Sequence 256, Application US/10511559 Publication No. US20050256304A1

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RESULT 6
US-10-511-559-75
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US-10-511-559-257
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US-10-511-559-256
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CURRENT FILING DATE: 2004-10-15
PRIOR APPLICATION NUMBER: PCT/EP03/04063
PRIOR FILING DATE: 2003-04-17
PRIOR APPLICATION NUMBER: EP 02008712.8
PRIOR FILING DATE: 2002-04-18
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR FILING DATE: 2003-03-24
Sequence 75, Application US/10511559
Publication No. US20050256304A1
GENERAL INFORMATION:
APPLICANT: JONES, Tim
APPLICANT: BAKER, Matthew
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 257
LENGTH: 13
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Best Local Similarity 75.0%;
Matches 6; Conservative
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 256
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Best Local :
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CURRENT FILING DATE: 2004-10-15
PRIOR APPLICATION NUMBER: PCT/EP03/04063
PRIOR FILING DATE: 2003-04-17
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PRIOR FILLING DATE: 2002-04-18
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR FILING DATE: 2003-03-24
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APPLICANT: CARR, Francis, J.
TITLE OF INVENTION: MODIFIED FACTOR VIII
FILE REPERENCE: MER-133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: JONES, Tim
APPLICANT: BAKER, Mat
APPLICANT: CARR, Fran
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                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
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5. US20050256304A1
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Pred. No. 13;
0; Mismatches 2; Indels
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Query Match
Best Local Similarity
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                                                                                                   ; ORGANISM: Homo sapiens
US-11-054-515-2909
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                                                                                                                                                                                                                                            PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
PRIOR PPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
PRIOR FILING DATE: 2000-10-17
                                                                                                                                        Remaining Prior Application
NUMBER OF SEQ ID NOS: 3247
SEQ ID NO 2909
LENGTH: 15
TYPE: PRT
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PRIOR FILING DATE: 2002-04-18
PRIOR APPLICATION NUMBER: EP 03006554.4
PRIOR FILING DATE: 2003-03-24
NUMBER OF SEQ ID NOS: 1147
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 75
LENGTH: 15
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Best Local S
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PRIOR FILING DATE: 2004-02-11
PRIOR APPLICATION NUMBER: 60/580,347
PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
PRIOR FILING DATE: 2002-11-14
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TITLE OF INVENTION: MODIFIED FACTOR VIII
FILE REFERENCE: MER-133
CURRENT APPLICATION NUMBER: US/10/511,559
CURRENT FILING DATE: 2004-10-15
PRIOR APPLICATION NUMBER: PCT/EP03/04063
PRIOR FILING DATE: 2003-04-17
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CURRENT FILING DATE: 2005-02-10
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TITLE OF INVENTION: Antibodies that Immunospecifically Bind
FILE REFERENCE: PF523P3
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ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                    OR FILING DATE: 2001-11-16
OR APPLICATION NUMBER: 60/340,817
OR FILING DATE: 2001-12-19
OR APPLICATION NUMBER: 09/880,748
OR FILING DATE: 2001-06-15
OR APPLICATION NUMBER: 60/293,499
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Similarity 75.0%;
6; Conservative
                 Conservative
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                                    27.1%;
33.3%;
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                 4; Mismatches
                                    Score 32; DB Pred. No. 15;
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                   4.
                                                        Length 15;
                   Indels
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                 Gaps
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; ORGANISM: Homo sapiens
US-11-054-515-2158
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                                                                                                                                                                                                                                                              Sequence 2896, Application US/11054515
Publication No. US2005025532A1
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PF523B3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Remaining Prior Application data removed - See File Wrapper or PALM NUMBER OF SEQ ID NOS: 3247
SEQ ID NO 2158
LENGTH: 20
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GENERAL INFORMATION
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Best Local
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                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/11/054,515
CURRENT FILLING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
PRIOR FILING DATE: 2004-02-11
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PRIOR
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PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
PRIOR APPLICATION NUMBER: 60/331,469
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CURRENT FILING DATE: 2005-02-10
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TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PF523P3
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PRIOR FILING DATE: 2004-02-11
                                                                                                    PRIOR
                                                                                                                                        PRIOR APPLICATION NUMBER: 60/580,347 PRIOR FILING DATE: 2004-06-18
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APPLICATION NUMBER: 60/340,817
PTT.TNG DATE: 2001-12-19
                                                       APPLICATION NUMBER: 10/293,418
FILING DATE: 2002-11-14
APPLICATION NUMBER: 60/331,469
FILING DATE: 2001-11-16
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FILING DATE: 2001-03-21
APPLICATION NUMBER: 60/276,248
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                     FILING DATE:
                                      APPLICATION NUMBER: 60/340,817
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. US20050255532A1
NUMBER: 09/880,748
                   2001-12-19
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71.4%;
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; NUMBER OF SEQ ID N
; SEQ ID NO 2903
; LENGTH: 20
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LENGTH: 20
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Best Local
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PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
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PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
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PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
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CURRENT FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
PRIOR FILING DATE: 2004-02-11
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TITLE OF INVENTION: Ant
FILE REFERENCE: PF523P3
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PRIOR FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 09/880,748
PRIOR FILING DATE: 2001-06-15
PRIOR PRIOR FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/293,499
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PRIOR APPLICATION NUMBER: 60/277,379
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PRIOR FILING DATE: 2001-11-16
                                                                                                                                                                   TYPE: PRT ORGANISM: Homo sapiens
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YYIGNGA 17
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71.4%;
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71.48;
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Pred. No.
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CURRENT APPLICATION NUMBER: US/11/054,515
CURRENT FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
PRIOR FILING DATE: 2004-02-11
PRIOR PPLICATION NUMBER: 60/580,347
PRIOR FILING DATE: 2004-06-18
PRIOR FILING DATE: 2004-06-18
PRIOR PILING DATE: 2001-11-14
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILING DATE: 2001-11-16
PRIOR FILING DATE: 2001-11-16
PRIOR FILING DATE: 2001-11-16
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CURRENT APPLICATION NUMBER: US/11/054,515

CURRENT FILING DATE: 2005-02-10

PRIOR APPLICATION NUMBER: 60/543,296

PRIOR FILING DATE: 2004-02-11

PRIOR PRIOR FILING DATE: 2004-06-18

PRIOR APPLICATION NUMBER: 60/580,347

PRIOR FILING DATE: 2004-06-18

PRIOR FILING DATE: 2002-11-14

PRIOR APPLICATION NUMBER: 10/293,418

PRIOR FILING DATE: 2002-11-14

PRIOR APPLICATION NUMBER: 60/331,469

PRIOR APPLICATION NUMBER: 60/340,817

PRIOR APPLICATION NUMBER: 60/340,817

PRIOR FILING DATE: 2001-12-19

PRIOR FILING DATE: 2001-12-19

PRIOR FILING DATE: 2001-12-19
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US-11-054-515-2214
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Sequence 2215, Application US/11054515
Publication No. US2005025532A1
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: Annibodies that Immunospecifically Bind BLyS
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SEQ ID NO 2214
LENGTH: 16
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Best Local Similarity
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PRIOR FILING DATE: 2000-10-17
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TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
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TYPE: PRT
                                                                                              APPLICATION NUMBER: 60/340,817
FILING DATE: 2001-12-19
APPLICATION NUMBER: 09/880,748
FILING DATE: 2001-06-15
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APPLICATION NUMBER: 60/277,379 FILING DATE: 2001-03-21
                                                APPLICATION NUMBER: 60/293,499 FILING DATE: 2001-05-25.
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RESULT 14 US-11-054-515-2219

Sequence 2219, Application US/11054515 Publication No. US20050255532A1

APPLICANT: Ruben et al

INFORMATION:

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; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-054-515-2217
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US-11-054-515-2217
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Matches 4
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NUMBER OF SEQ ID
SEQ ID NO 2217
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PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 3247
SEQ ID NO 2215
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Publication No. US20050255532A1
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Best Local
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PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILING DATE: 2001-11-16
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CURRENT APPLICATION NUMBER: US/11/054,515
CURRENT FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
PRIOR FILING DATE: 2004-02-11
PRIOR FILING DATE: 2004-02-11
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Remaining Prior Application data removed - See File Wrapper or PALM
NUMBER OF SEQ ID NOS: 3247
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FILING DATE: 2001-06-15
APPLICATION NUMBER: 60/293,499
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9 YVĻHYY 14
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                                                                     4; Conservative
                                                                                       Similarity
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                                                                     Score 31; DB Pred. No. 23; 1; Mismatches
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Pred. No. 23;
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                                                                                                      Length 16
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US-11-054-515-2219
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CURRENT FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
PRIOR FILING DATE: 2004-02-11
PRIOR APPLICATION NUMBER: 60/580,347
PRIOR FILING DATE: 2004-06-18
PRIOR PELICATION NUMBER: 10/293,418
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR APPLICATION NUMBER: 60/331,469
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PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: 60/340,817
PRIOR APPLICATION NUMBER: 60/340,817
PRIOR APPLICATION NUMBER: 09/880,748
PRIOR APPLICATION NUMBER: 09/880,748
PRIOR FILING DATE: 2001-06-15
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Publication No. US2005025532A1
GENERAL INFORMATION:
APPLICANT: Ruben et al.
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CURRENT FILING DATE: 2005-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
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PRIOR FILING DATE: 2000-10-17
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TYPE: PRT
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OR FILLING DATE: 2001-05-25
OR APPLICATION NUMBER: 60/277,379
OR FILLING DATE: 2001-03-21
OR APPLICATION NUMBER: 60/276,248
OR FILING DATE: 2001-03-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match 26.3%; Local Similarity 66.7%;
                                                                                              APPLICATION NUMBER: 60/277,379
FILING DATE: 2001-03-21
APPLICATION NUMBER: 60/276,248
FILING DATE: 2001-03-16
                                                                                                                                                                                             APPLICATION NUMBER: 09/880,748
FILING DATE: 2001-06-15
APPLICATION NUMBER: 60/293,499
FILING DATE: 2001-05-25
                                                                                                                                                                                                                                                                                            FILING DATE: 2001-11-16
APPLICATION NUMBER: 60/340,817
FILING DATE: 2001-12-19
                                              APPLICATION NUMBER: 60/240,816 FILING DATE: 2000-10-17
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Prior Application data removed SEQ ID NOS: 3247
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Pred. No. 23;
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                       See File Wrapper or PALM
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-054-515-2298
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CURRENT FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
PRIOR FILING DATE: 2004-02-11
PRIOR APPLICATION NUMBER: 60/580,347
PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
PRIOR FILING DATE: 2002-11-14
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                                                                                                                      Sequence 489, Application US/11033039 Publication No. US20060002947A1 GENERAL INFORMATION:
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Publication No. US20050255532A1
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LENGTH: 16
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Best Local Similarity
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Matches 4; Conserv
APPLICANT: HUMPHREYS, ROBERT
APPLICANT: XU, MINZHEN
TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REFERENCE: REH-2017US01
CURRENT APPLICATION NUMBER: US/11/033,039
CURRENT FILING DATE: 2005-01-11
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PRIOR FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: 60/340,817
PRIOR FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 09/880,748
PRIOR FILING DATE: 2001-06-15
PRIOR FILING DATE: 2001-06-15
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PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
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PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/277,379
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66.7%;
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    Mismatches

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Pred. No. 23;
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RESULT 19
US-10-939-890-11
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US-11-033-039-489
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PRIOR FILING DATE: 1999-09-14
NUMBER OF SEQ ID NOS: 1452
SOFTWARE: PATENTIN VERSION 3.3
SEQ ID NO 512
                                                                             GENERAL
                                                                                          Sequence 11, Application US/10939890 Publication No. US20050250700A1
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Best Local
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SEQ ID NO 489
LENGTH: 9
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APPLICANT: Sato, Aaron K.
APPLICANT: Sexton, Daniel J.
APPLICANT: Dransfield, Daniel T.
APPLICANT: Ladner, Robert C.
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CURRENT FILING DATE: 2005-01-11
PRIOR APPLICATION NUMBER: 10/245,871
PRIOR FILING DATE: 2002-09-17
PRIOR APPLICATION NUMBER: 10/197,000
PRIOR FILING DATE: 2002-07-17
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APPLICANT: XU, MINZHEN
TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REFERENCE: REH-2017US01
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PRIOR FILING DATE: 2002-09-17
PRIOR APPLICATION NUMBER: 10/197,000
PRIOR FILING DATE: 2002-07-17
PRIOR APPLICATION NUMBER: 09/396,813
PRIOR FILING DATE: 1999-09-14
NUMBER OF SEQ ID NOS: 1452
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LOCATION: (5)..(5)
OTHER INFORMATION: Ava
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENGTH: 14
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                                                                           INFORMATION:
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Similarity 55.6%;
5; Conservative
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5; Conserv
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Pred. No. 5.8e
2; Mismatches
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Pred. No. 29;
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зев 2;
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PRIOR FILING DATE: 2003-09-11
PRIOR APPLICATION NUMBER: US 10/382,082
PRIOR FILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: PCT/US03/06731
PRIOR APPLICATION NUMBER: US 60/440,411
PRIOR FILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: US 60/440,411
PRIOR FILING DATE: 2003-01-15
PRIOR APPLICATION NUMBER: US 60/360,851
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Best Local S
Matches 5
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NUMBER OF SEQ ID NOS: 883
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 11
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CURRENT APPLICATION NUMBER: US/10/939,890
CURRENT FILING DATE: 2004-09-13
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TITLE OF INVENTION: KDR AND VEGF/KDR BINDING PEPTIDES
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TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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Invention: KDR and VEGF/KDR BINDING PEPTIDES
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Fan, Sudha
                              Song, Bo
Swenson, Rolf E.
                                                                 Shrivastava, Ajay
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Linder, Karen E.
Marinelli, Edmund R.
Manjappan, Palaniappa
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Dransfield, Daniel T.
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Pochon, Sibylle
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Bussat, Philippe
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Shrivastava, Ajay
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Pochon, Sibylle
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Marinelli, Edmund R.
Nanjappan, Palaniappa
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b. US20050250700A1
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Sudha
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71.4%;
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PRIOR FILING DATE: 2003-09-11
PRIOR APPLICATION NUMBER: US 10/382,082
PRIOR FILING DATE: 2003-03-03
PRIOR FILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: PCT/US03/06731
PRIOR FILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: US 60/440,411
PRIOR APPLICATION NUMBER: US 60/440,411
PRIOR APPLICATION NUMBER: US 60/360,851
PRIOR APPLICATION NUMBER: US 60/360,851
PRIOR APPLICATION NUMBER: US 60/360,851
PRIOR PILING DATE: 2002-03-01
                                                                           Query Match
Best Local S
Matches 5
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NUMBER OF SEQ ID NOS: 1452
SOFTWARE: PATENTIN VERSION 3.3
SEQ ID NO 513
LENGTH: 17
TYPE: PRT
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 205
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 2002-09-17
PRIOR APPLICATION NUMBER: 10/197,000
PRIOR FILING DATE: 2002-07-17
PRIOR APPLICATION NUMBER: 09/396,813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/11/033,039
CURRENT FILING DATE: 2005-01-11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILE REFERENCE: REH-2017US01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: XU, MINZHEN
TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: HUMPHREYS, ROBERT APPLICANT: XU, MINZHEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 10/245,871
                                                                                                                                                                  NAME/KEY: MOD_RES
LOCATION: (5)...(5)
OTHER INFORMATION: Ava
                                                                                                                                                                                                                                                     OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: hybrid peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                     FEATURE:
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                                                                                                                                                                                                                                                                                                                ORGANISM: Artificial Sequence
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nes 5; Conservat
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                                      MHYYLNNGA 21
MHYYVSMDA 14
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o. US20060002947A1
                                                                             Conservative
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71.4%;
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Pred. No.
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Query Match
Best Local Similarity
Marches 5; Conserve
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                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/986,501
CURRENT FILING DATE: 2004-11-12
PRIOR APPLICATION NUMBER: US/10/621,363
PRIOR TILING DATE: 2003-07-18
PRIOR APPLICATION NUMBER: 09/969,730
PRIOR APPLICATION NUMBER: 09/969,730
PRIOR APPLICATION NUMBER: 09/774,639
PRIOR APPLICATION NUMBER: 09/774,639
PRIOR APPLICATION NUMBER: 60/238,291
PRIOR APPLICATION NUMBER: 60/238,291
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PRIOR FILLING DATE: 2004-02-11
PRIOR APPLICATION NUMBER: 60/580,347
PRIOR FILLING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILING DATE: 2002-11-14
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILING DATE: 2001-11-16
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CURRENT FILING DATE: 2005-02-10
                                                                                                                    PRIOR FILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 09/244,112
PRIOR FILING DATE: 1999-02-04
                                                                                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: PZ013P2C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Ruben et al.
TITLE OF INVENTION: 90 Human Secreted Proteins
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PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
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TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PF523P3
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PRIOR FILING DATE: 2001-05-25
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                                                                   APPLICATION NUMBER: PCT/US98/16235 FILING DATE: 1998-08-04
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                  APPLICATION NUMBER: 60/056,371 FILING DATE: 1997-08-19
APPLICATION NUMBER: 60/056,732
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38.5%;
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Pred. No.
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; OTHER INFORMATION: Potential Epitope of human Factor VIII
US-10-511-559-254
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Best Local Similarity
Matches 5; Conserv
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 254
                                                                                                                                                                          Sequence 2258, Application US/11054515
Publication No. US20050255532A1
GENERAL INFORMATION:
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SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 203
LENGTH: 8
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Best Local Similarity 83.0

Matches 5; Conservative
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                                 APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PFS23P3
CURRENT APPLICATION NUMBER: US/11/054,515
CURRENT FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
PRIOR FILING DATE: 2004-02-11
PRIOR FILING DATE: 2004-02-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/511,559
CURRENT FILING DATE: 2004-10-15
PRIOR APPLICATION NUMBER: PCT/EP03/04063
PRIOR FILING DATE: 2003-04-17
PRIOR APPLICATION NUMBER: EP 02008712.8
PRIOR FILING DATE: 2002-04-18
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APPLICANT: CARR, Francis, J.
TITLE OF INVENTION: MODIFIED FACTOR VIII
FILE REFERENCE: MER-133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: EP 03006554.4 PRIOR FILING DATE: 2003-03-24
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APPLICATION NUMBER: 60/580,347 FILING DATE: 2004-06-18
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100.0%; Pred. No. 38
:ive 0; Mismatches
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Pred. No. 5.8e+04;
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US-11-054-515-2258
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; LENGTH: 16
; TYPE: PRT
                                                                             Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 10/293,418 PRIOR FILING DATE: 2002-11-14 PRIOR APPLICATION NUMBER: 60/331,469
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                                                                                                                                                                         ORGANISM: Homo sapiens
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FILING DATE: 2001-05-25
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APPLICATION NUMBER: 60/331,469
FILING DATE: 2001-11-16
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9 YVFHYY 14
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                                                                                               24.6%;
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                                                                                             Score 29; DB 7;
Pred. No. 47;
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Search completed: January 26, 2006, 08:39:06
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192.434 Million cell updates/sec
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ALIGNMENTS

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C;Species: Scaphylococcus aureus
C;Species: Scaphylococcus aureus
C;Date: 29-Uul-1981 #sequence revision 01-Sep-1981 #text_change 09-Jul-2004
C;Accession: B93717; B93866; A4568; S03586; A03599
R;Gryczan, T.J.; Grandi, G.; Hahn, J.; Grandi, R.; Dubnau, D.
Nucleic Acids Res. 8, 6081-6097, 1980
A;Title: Conformational alteration of mRNA structure and the posttranscriptional A;Reference number: A93717; MUID:81124320; PMID:6162157
A;Accession: B93717
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A;Title: Conjugative transfer of Enterococcus faecalis plasmid A;Reference number: A41868; MUID:92250408; PMID:1315730
A;Contents: plasmid pAD1
A;Accession: B41868
A;Reference number: A46568; MUID:89036120; PMID:3141573
A;Accession: A46568
A;Status: preliminary
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A;Cross-references: UNIPARC:UPI00000003A9; GB:V01278; GB:J01755; A;Cross-references: glasmid pE194
A;Experimental source: plasmid pE194
A;Note: this peptide is involved in the control mechanism of the R;Catchpole, I; Thomas, C; Davies, A; Dyke, K.G.H.
J. Gen. Microbiol. 134, 697-709, 1988
                                                                                                                                                                                                                                                                                               R;Horinouchi, S.; Weibblum, B.

Proc. Natl. Acad. Sci. U.S.A. 77, 7079-7083, 1980
A;Title: Posttranscriptional modification of mRNA conformation: mechanism that regulates A;Reference number: A33866; MUID:81175093; PMID:6938954
A;Accession: B93866
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A;Title: Nucleotide sequence of the sex pheromone inhibitor
A;Reference number: A37391; MUID:91261999; PMID:2128961
A;Accession: B37391
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A;Note: sequence extracted from NCBI backbone (NCBIN:99901, NCBIP:99906)
R;Clewell, D.B.; Pontius, L.T.; An, F.Y.; Ike, Y.; Suzuki, A.; Nakayama,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical protein (traEl 3' region) - Enterococcus faecalis plasmid pADI
                                                                           ve resistance.
                                                                                                   A;Title:
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A; Residues: 1-15 < CLE>
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C;Accession: S08590

R;Hayashida, N.; Matsubayashi, T.; Shinozaki, K.; Sugiura, M.; Inoue, K.; Hiyama, Curr. Genet. 12, 247-250, 1987

A;Title: The gene for the 9 kd polypeptide, a possible apoprotein for the iron-su. A;Reference number: S07170; MUID:88210537; PMID:3329576

A;Accession: S08590
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J. Bacteriol. 169, 340-350, 1987
A;Title: Cloning and analysis of ermG, a new macrolide-lincosamide-streptogramin A;Reference number: A91840; MUID:87083389; PMID:3025178
A;Accession: B26330
                                                                           A;Genome: chloroplast C;Superfamily: NADH d C;Keywords: chloropla
                                                                                                                                                                                                                                                                                                                                                      NADH2 dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Debney's tobacco chloroplast C;Species: chloroplast Nicotiana debney' (Debney's tobacco) C;Date: 25-Feb-1994 #sequence_revision 01-Dec-1995 #text_change 03-Jun-2002 C;Date: 25-Feb-1996 #sequence_revision 01-Dec-1995 #text_change 03-Jun-2002 C;Accession: S08590
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A;Cross-references: UNIPARC:UPI0000000AD9; EMBL:X05881; NID:g11790; PIDN:CAA29305.1;
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C;Species: Bacillus sphaericus
C;Date: 08-Mar-1989 #sequence_revision 08-M
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A; Residues: 1-19 < MAY>
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A; Residues: 1-21 <HA
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A;Residues: 1-19 <MON>
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membrane-associated complex; !
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                                      Score 30;
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                      No. 2e+02;
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nitrogenase cofactor synthesis protein nifs - Anabaena variabilis (fragment) N;Contains: L-cysteine sulfurtransferase (EC 2.8.1.-) C;Species: Anabaena variabilis (fragment) C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004 C;Accession: S32677 R;Monnerjahn, U; Boehme, H. submitted to the EMBL Data Library, December 1992
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-15 <MON:
                                                         A; Description: Cloning and A; Reference number: S32675 A; Accession: S32677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain div A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0254
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J. Protein Chem. 7, 527-534, 1988
A;Title: The protein sequence homology of gamma-crystallins among major vertebrate class A;Reference number: A60894; MUID:89351593; PMID:3255376
A;Accession: E60894
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A; Residues: 1-14 < YAM>
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A;Residues: 1-20 <CHI>
A;Cross-references: UNIPROT:Q7M447; UNIPARC:UPI00001754DB
C;Superfamily: glutathione transferase
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C;Species: Sepia esculenta (Pacific cuttlefish)
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1
C;Accession: E60894
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Best Local
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Pred. No. 2.7e
3; Mismatches
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Pred. No. 3.8e+02;
2; Mismatches 3;
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2.7e+02;
3;
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C;Species: Bubacterium acidaminophilum
C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997
C;Accession: S63503
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c;Species: Haemophilus influenzae
C;Date: 18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change 30-Jun-1998
C;Accession: G64003
C;Accession: G64003
R;Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.; Kirkness, E.F.; Kerlavage, Gocayne, J.D.; Scott, J.; Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weidman, D.M.; Brandon, R.C.; Fine, L.D.; Fritchman, J.L.; Fuhrmann, J.L.; Geoghagen, N.S.M.
Science 269, 496-512, 1995
                                                                    S63503
83K protein
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A;Experimental source: bone marrow pre-B
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A; Residues: 1-14 <LEV>
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C;Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999
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                                                                                                                                                                                                                                                                                                                                                                             C; Keywords: immunoglobulin
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A;Residues: 1-12 <TIGR>
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Pred. No.
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Pred. No. 4.1e+02;
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5.5e+02;
                      #text_change 17-Mar-1999
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C;Accession: $42282
R;Crickmore, N: Wheeler, V.C.; Ellar, D.J.
Mol. Gen. Genet. 242, 365-368, 1994
A;Title: Use of an operon fusion to induce expression and crystallisation of a Bacillus A;Reference number: $42282; MUID:94150472; PMID:7906381
A;Accession: $42282
A;Molecule type: protein
A;Residues: 1-10 <CRIV
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A;Title: Molecular cloning and expression of the transformation sensitive epithelial manual reference number: S34753; MUID:93294871; PMID:8515476
A;Accession: S37684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein IEF SSP 9125 - human (fragments)
C;Species: Homo sapiens (man)
C;Date: 09-Dec-1993 #sequence_revision 17-Nov-1995 #text_change 17-Nov-1995
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Eur. J. Biochem. 234, 184-191, 1995
A;Title: Purification and characterization of protein P(B)
В
                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Bacillus thuringiensis
C;Date: 19-Mar-1997 #sequence_revision 01-Aug-1997 #text_change 24-Jul-1998
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A;Molecule type: protein
A;Residues: 1-20 <LEF>
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A;Experimental source: subsp. galleriae 916
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A; Residues: 1-17 <MEY>
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                                                                                                                                                     ;Genome: plasmid
;Keywords: delta
                                                                                                                                                                                         Gene: cryIIB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Accession: S37684
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Best Local Similarity
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Local Similarity 44.4%;
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                                         MHYYLNNG
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     MNTVLNNG
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Pred. No. 9.7e+02;
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Pred. No. 6.8e+02;
                                                                                               Score 25; I
Pred. No. 5.
                                                                               Mismatches
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                                                                                               DB 2;
5.5e+02;
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RESULT 15
S72217
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A;Experimental source: bone marrow pre-B lymphocyte
C;Keywords: immunoglobulin
                                                             A;Cross-references:
C;Keywords: oxidored
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J. Exp. Med. 178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced immunodeficiency in B-less mice
A;Reference number: PH1580; MUID:93301609; PMID:8315387
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J. Exp. Med. 178, 317-329, 193
A;Title: Molecular characterization of transgene-induced
A;Reference number: PH1580; MUID:93301609; PMID:8315387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig H chain V-D-J region (wild-type clone 327) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999
                                                                            A;Molecule type: protein
A;Residues: 1-14 <KIM>
A;Cross-references: UNIPARC:UPI000017CDB9
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A; Molecule type: DNA
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A;Experimental source: bone marrow pre-B
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A; Residues: 1-16 < LEV>
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Best Local :
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Similarity 4; Conserv
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               20.3%;
Score 24; DB 2;
Pred. No. 1.1e+03;
1; Mismatches 1
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Pred. No. 9.1e
2; Mismatches
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Pred. No.
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                                Length 14;
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R/Advison, M.D.; Rixon, F.J.; Davison, A.J.
J. Gen. Virol. 73, 2709-2713, 1992
A/Title: Identification of genes encoding two capsid proteins A/Reference number: PQ0544; MUID:93019027; PMID:1328483
A/Accession: PQ0544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0332
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A;Title: Structural and immunological studies on the soluble formate dehydrogenase from A;Reference number: S59492; MUID:96145736; PMID:8561915
A;Accession: S59495
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S59495
  A/Cross-references: UNIPARC:UPI000017A7CA
A/Experimental source: strain 17
                                        A; Molecule type: protein A; Residues: 1-20 < DAV>
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C; Keywords: heterotetramer;
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A; Residues: 1-19 < YAM>
A; Cross-references: UNIPARC: UPI000017C21A
A; Experimental source: B lymphocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ig heavy chain CRD3 region (clone J2-139) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
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PT0332
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: protein A; Residues: 1-14 <FRI>
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C;Species: Alcaligenes eutrophus
C;Date: 27-Apr-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S59495
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                                                                                                                                                                                 Species: human herpesvirus 1
;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 07-May-1999;Accession: P00544
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Best Local :
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Experimental source: strain
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Best Local Similarity
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Pred. No. 1.6e+03;
""" matches 2;
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Pred. No. 1.1e+03;
0; Mismatches 1
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Ig H chain V-D-J region (wild-type clone 333) - mouse (fragment) (Species: Mus musculus (house mouse) C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change C;Accession: PH1607
R;Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced immunodeficiency in B-less mic-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Accession: PH1601
R;Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
J. Exp. Med. 178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced immunodeficiency in B-less mic A;Reference number: PH1580; MUID:93301609; PMID:8315387
A;Accession: PH1601
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PH1601
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A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobuli
                                                                                                                                                                                                                                                                                                                                                                                                                               C; Keywords: immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPARC:UPI000017C6BE
A;Experimental source: bone marrow pre-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-14 <LEV>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R.Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Cator J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin A;Reference number: PT0222; MUID:91108337; PMID:1899102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Gene: UL19
C;Keywords: capsid protein
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A;Residues: 1-13 <YAM>
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Similarity 50.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19.5%;
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Pred. No. 1.6e+03;
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Pred. No. 1.5e+03;
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Pred. No. 1.7e+03;
1; Mismatches 0
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                                                                                        #text_change 17-Mar-1999
                                                                                                                                                                                                                                                                                                                                                                                   Length 14;
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RESULT 24
PQ0751
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J. Exp. Med. 176, 1577-1581, 1992
A;Title: Predominance of fetal type DJH joining in young children with B precursor lymph A;Reference number: PH1302; MUID:93094761; PMID:1460419
A;Accession: PH1307
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R;Mannervik, B.; Alin, P.; Guthenberg, C.; Jensson, H.; Tahir, M.K.; Warholm, Proc. Natl. Acad. Sci. U.S.A. 82, 7202-7206, 1985

A;Title: Identification of three classes of cytosolic glutathione transferase A;Reference number: A24735; MUID:86042634; PMID:3864155

A;Accession: B24735
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B24735
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
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C;Species: Rattus norvegicus (Norway rat)
C;Date: 25-Oct-1987 #sequence_revision 25-Oct-1987 #text_change 18-Jun-1993
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A;Experimental source: bone marrow pre-B lymphocyte
C;Superfamily: immunoglobulin V region; immunoglobulin homology
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A; Residues: 1-17 <LEV>
self-incompatibility protein S4 -
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A; Residues: 1-19 <WAS>
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A; Residues: 1-18 < MAN>
A; Cross-references: UNIPARC: UPI000017542B
C; Superfamily: glutathione transferase
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Species: Homo sapiens (man);Date: 30-Sep-1993 #text_change 07-May-1999;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 07-May-1999;Accession: PHI307
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Similarity 50.0%;
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Pred. No. 2e+0
0; Mismatches
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Pred. No. 2.3e+03;
2; Mismatches 1
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potato (fragment)
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A;Genome: chloroplast
C;Superfamily: H(+)-transporting ATP synthase protein 6
C;Keywords: ATP biosynthesis; chloroplast; hydrolase; membrane-associated complex; thyla)
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FEBS Lett. 377, 163-166, 1995
A;Title: Isolation of CF(0)CF(1) from Chlamydomonas reinhardtii cw15 and the N-terminal a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               H+-transporting two-sector ATPase (EC 3.6.3.14) chain I - Chlamydomonas reinhardtii chlon
N;Alternate names: ATP synthase chain I
C;Species: chloroplast Chlamydomonas reinhardtii
C;Date: 04-Dec-1997 #sequence_revision 12-Dec-1997 #text_change 31-Dec-2004
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S68392
Search completed: January 26, 2006, 08:05:02 Job time: 12.5 secs
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Theor. Appl. Genet. 78, 581-588, 1989
A;Title: Characterization of proteins associated with self-incompatibility in Solanum tur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Solanum tuberosum (potato)
C;Date: 19-May-1994 #sequence_revision 19-May-1994 #text_change 31-Dec-2004
C;Accession: PQ0751
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A;Experimental source: strain CW15
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A;Experimental source: style
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A;Accession: PQ0751
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A;Accession: $68392
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Pred. No.
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Pred. No.
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MEDLINE=21621309; PubMed=11751136; DOI=10.1128/AAC.46.1.211-215.2002; Matsuoka M., Inoue M., Nakajima Y., Endo Y.;

Matsuoka M., Inoue M., Nakajima Y., Endo Y.;

"New erm Gene in Staphylococcus aureus clinical isolates.";

Antimicrob. Agents Chemother. 46:211-215(2002).

EMBL; ABO14481; BAB20747-1; -; Genomic DNA.

SEQUENCE 19 AA; 2195 MW; 605CBAD99E4B6B7F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=leader peptide(LP) of ermGM;
Staphylococcus aureus.
Bacteria; Firmicutes; Bacillales;
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01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Leader peptide of ErmGM.
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"The staphylococcal tetracycline macrolide-lincosamide-streptogramin resistance plasmid pSTE2 is an RSA mediated in vivo recombination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Staphylococcus lentus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledona; core eudicots; asterids; campanulids; Asterales; Asteraceae; Asteroideae; Heliantheae; Helianthus.
                                                                                                                                                                                                                             SEQUENCE
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NON_TER 1
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EMBL; CAAJ01003410; C
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Eukaryota; Alveolata;
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ORFNames=PC106693.00.0;
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13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
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Q4XSZ8;
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Biochem. J. 314:333-337(1996).
SEQUENCE 15 AA; 1619 MW; CDC28A062F7F8704
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MEDLINE=96195148; PubMed=8660304;
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Science 307:82-86 (2005).

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Science 307:82-86 (2005).

Science 307:82-86 (2005).
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Clewell D.B., Pontius L.T., An F.Y., Ike Y., Suzuki
"Nucleotide sequence of the sex pheromone inhibitor
of Enterococcus faecalis conjugative plasmid pAD1.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=92250408; PubMed=1315730; Pontius L.T., Clewell D.B.; Pontius L.T., Clewell D.B.; "Conjugative transfer of Enterococcus faecalis nucleotide sequence and transcriptional fusion involved in positive regulation."; J. Bacteriol. 174:3152-3160(1992)
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Plasmid pAD1.
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Eukaryota; Alveolata;
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   8 IXAHALAW
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Pred. No. 7.3e+02;
                                                                                                                                             Score 31; DB 2;
Pred. No. 7.8e+0;
3; Mismatches
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L Science 307:82-86(2005).

EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is preliminary data.

EMBL/CAALIONARY A. CANCOR D. Street J. Street an EMBL/CAALIONARY A. Caruche shotgun (WGS) entry which is preliminary data.
Query Match
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Hall N., Karras M., Raine J.D., Carlton J.M., Kooij T.W.A.,
Berriman M., Florens L., Janssen C.S., Pain A., Christophides G.K.,
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.B., Mendoza J.,
Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kafatos F.C
Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.;
"A comprehensive survey of the Plasmodium life cycle by genomic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Hypothetical protein (Fragment).
ORFNames=PB101034,00.0;
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EMBL; CARIO100238; CAH97920.1; -;
Hypothetical protein.
SEQUENCE 21 AA; 2441 MW: P70DA
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Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
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Q4Z5L3;
                                                                                                         Hypothetical protein NON_TER 1
                                                                                                                                                                                                                transcriptomic, and protec
Science 307:82-86(2005).
-!- CAUTION: The sequence
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                    Score 30.5; DB 2;
Pred. No. 1.1e+03;
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                                                                                                                                                                                                                                                                              MEDLINE=81124320; PubMed=6162157; Gryczan T.J., Grandi G., Hahn J., Grandi R., "Conformational alteration of mRNA structure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Staphylococcus aureus.
Plasmid pE194, and Plasmid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=ermC;
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                                                                            NUCLEOTIDE SEQUENCE PLASMID=pE194;
                                                                                                                                                                                                                                           posttranscriptional regulation of erythromycin-induced drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bacteria; Firmicutes;
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47, Last annotation update)
leader peptide (Erythromycin resistance leader
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EMBL; M3784; AAA98225.1; -; Genomic_DNA.
EMBL; M19652; AAA20193.1; -; Unassigned_D
PIR; B93717; LFSAP9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=86037248; PubMed=2414456; Mayford M., Weisblum B.; "Messenger RNA from Staphylococcus aureus that specifies "Messenger RNA from Staphylococcus aureus that specifies lincosamide-streptogramin resistance. Demonstration of it conformations and of the leader peptide it encodes."; J. Mol. Biol. 185:769-780(1985).
MEDLINE=96379895; PubMed=8787908;
Lodder G., Schwarz S., Gregory P., Dyke K.
"Tandem duplication in ermC translational
                                                           NCBI_TaxID=29383;
                                                                                     Staphylococcus
Plasmid pSES6.
                                                                                                                    Name=orf1;
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                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              translational
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "ermC leader peptide. Amino acid
translational attenuation.";
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                                                                                                                                                                                                                                                                                                                 Similarity 5; Conserv
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19 AA; 2210 MW; 13FEE3D99E4F3A7B CRC64;
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RESULT 13
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GN Name=orf 1;
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Submitted (MAY-1998) to the EMEMBL; Y17294; CAB46339.1; -; GHBPDOTHETICAL protein; Plasmid.
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Submitted
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Submitted (OCT-1996) to
EMBL; X82668; CAAS7984.1
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"Molecular analysis of naturally occurring ermC-encoding plasmids in staphylococci isolated from animals with and without previous contact with macrolide / lincosamide antibiotics.";
PEMS Immunol. Med. Microbiol. 18:7-15(1997).
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Q45558;
01-NOV-1996 (
                                                            Bacillus sphaericus.
Bacteria; Firmicutes;
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Hypothetical protein; Plasmid.
SEQUENCE 19 AA; 2237 MW; 1
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DOI=10.1128/AAC.46.11.3621-3623.2002;
SChwarz S., Kehrenberg C., Ojo K.K.;
"Staphylococcus sciuri gene erm(3), encoding inducible resistance macrolides, lincosamides, and streptogramin B antibiotics, is a product of recombination between erm(C) and erm(A).";
Antimicrob. Agents Chemother. 46:3621-3623(2002).
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MEDLINE=22270974; Po
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EMBL; Y15274; CAA75561.1; -;
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RESULT 17
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"Cloning and analysis of ermG, a new mac streptogramin B resistance element from J. Bacteriol. 169:340-350(1987).
EMBL; M15332; AAA22418.1; -; Genomic_DNF pIR; B26930; B26930.
Q4JHH5_STAAU
                                                                                                                                               SEQUENCE
                                                                                                                                                          Plasmid
                                                                                                                                                                  Schwarz S.P.;
Submitted (NOV-1994) to the I
SubmL; Y09001; CAA70205.1; -;
EMBL; X82667; CAA57982.1; -;
                                                                                                                                                                                                               NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                              Lodder G., Schwarz S., Gregory P., Dyke K.;
"Tandem duplication in ermC translational attenuator
lincosamide streptogramin B resistance plasmid pSES6
Staphylococcus equorum.";
                                                                                                                                                                                                                                                                                          NUCLEOTIDE SEQUENCE.
MEDLINE=96379895; Pu
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Submitted (C
                                                                                                                                                                                                                                                                                                                                     NUCLEOTIDE SEQUENCE.
STRAIN=736153; PLASMID=pSES5;
Schwarz S.P.;
                                                                                                                                                                                                                                                                                                                                                                                         "Molecular analysis of naturally occurring ermC-encod
staphylococci isolated from animals with and without
with macrolide / lincosamide antibiotics.";
                                                                                                                                                                                                                                                                                                                                                                                                                Lodder G., Werckenthin C., Schwarz "Molecular analysis of naturally or
                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=97358486; PubMed=9215582; DOI=10.1016/S0928-8244(97)00016-3;
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Bacteria; Fir
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
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STAHO
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Pred. No. 1.4e-
3; Mismatches
                                                                                                            Score 30;
Pred. No.
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Genomic_
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ment from Bacillus sphaericus
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No. 1.4e+03;
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RESULT 18
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ID Q6LEG3;
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DT 05-UUL-2004 ESULT 19
Q79DT6 9ZZZZ
ID Q79DT6 9
AC Q79DT6 05-UUL-2
DT 05-UUL-2
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DT Leader p
CN Name-erm
OS Plasmid
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Plasmid pRJ5.
Plasmid pRJ5.
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Leader peptide.
Name=ermGT;
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13-SEP-2005
13-SEP-2005
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J. Gen. Microbiol. 139:1461-1461-147(1993).
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"The complete sequence of plasmid pWBG738 from the ST1-MRSA-IV lineage of community methicillin-resistant Staphylococcus aureus.";
Submitted (JUN-2005) to the EMBL/GenBank/DDBJ databases.
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NCBI_TaxID=31885
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    Plasmid pGT633
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RESULT 21
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MEDLINE=94224982; PubMed=8171126; DOI=10.1006/plas.1994.1007;

Tannock G.W., Luchansky J.B., Miller L.A., Connell H.,

Thode-Andersen S., Mercer A.A., Klaenhammer T.R.;

"Molecular characterization of a plasmid-borne (pGT633) erythromycin resistance determinant (ermGT) from Lactobacillus reuteri 100-63.";

Plasmid 31:60-71(1994).

EMBL; M64090; AAA98095.1; -; Genomic_DNA.
                                                                                                                                                 SEQUENCE
                                                                                                                                                            Hypothetical NON_TER
                                                                                                                                                                                  EMBL;
                                                                                                                                                                                                                          "Genome sequence and comparative analysis parasite Plasmodium yoelii yoelii."; Nature 419:512-519(2002).
                                                                                                                                                                                                                                                              Carucci
                                                                                                                                                                                                                                                                                                                                                                                                                              Name=PY06333; Synonyms=PY01707;
Plasmodium yoelii yoelii.
Eukaryota; Alveolata; Apicomple:
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01-MAR-2004 (TrEMBLrel. 26, Last
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NCBI_TaxID=28406;
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Name=PY06333; Synonyms=PY01707;
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; AABL01002128; EAA18531.1; -; Genomic_DNA.
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Hypothetical protein.
SEQUENCE 21 AA; 26
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                                                                                                                                                                                                                                                                       SEQUENCE
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EMBL; X05881; CAA29305.1; -;
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Science 307:82-86(2005).
-!- CAUTION: The sequence shown here is derived
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Berriman M., Florens
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01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Cytochrome oxidase II (Fragment).
Spinaria sp. MD-1998.
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MEDLINE=99152621; PubMed=10028295;
Dowton M., Austin A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Hymenoptera; Apocrita; Ichneumonoidea; Braconidae; Rogadinae; Spinaria.
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Q9ZYB7 9HYME PRELIMINARY;
Q9ZYB7;
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MEDLINE=89351593; PubMed=3255376;
Chiou S.H.;
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Decapodiformes; Sepioidea; Sepiidae; Sepia.
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Local Similarity 40.0%;
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Biol. Evol. 16:298-309(1999).
L; AF072122; AAD17665.1; -; Gen
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RESULT 25

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Berriman M., Florens L., Janssen C.S., Pain A., Christophides G.K.,
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,
Bidwell S.L., Rajandream M.A., Carucci D.J., Yates J.R., Kafatos F.C.,
Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.,
"A comprehensive survey of the Plasmodium life cycle by genomic,
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13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
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Hypothetical protein (Fragment).
ORFNames=PC405819.00.0;
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Hall N., Karras M., Raine J.D.,
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                                                    CC Sequences AAY52510-Y52522 represent proteolytic fragments of CC Dermatophagoides farinae high molecular weight mite allergen protein (HWM CC — map) composition. The HMM-map composition was isolated from a D. farinae CC presence of proteins that bound to IgE present in mite-allergic dog CC antisera. The HMM-map composition comprises mapA (a 109 kD protein) and CC mapB (98 kD). Mite allergenic proteins and peptides, and nucleic acids CC encoding them, may be used in therapautic compositions to modify an CC animal's hypersensitivity reaction to mite-allergens. Animals that may be used in therapautic compositions to modify an CC treated include mammals and birds, especially felines, canines, equines, thumans, other pets, and work or domestic animals. The proteins or CC fragments may also be used to diagnose allergies via a skin test. The CC proteins and peptides can also be used to raise antibodies, which have a variety of potential uses. For example, they can be used as vaccines to CC passive proteins in test kits and as tools to recover desired dust mite operations from a mixture of proteins
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   Sequence 17 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel high molecular weight Dermatophagoides nucleic acid polypeptides used to modify an animals' hypersensitivy to mite allergens.
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02-SEP-1998;
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98US-0085295P.
98US-0098909P.
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ABJ05782
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Abj 05782
Aau 95434
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Query Match Best Local Similarity

97.6%; 100.0%;

Score 81; Pred. No.

DB 3; Length 17, 4.1e-08;

RESULT 3
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AAW45138 standard; peptide; 16

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                                                                                                                                          Dermatophagoides, designated Der HMW-map protein, and its related nucleic acid. The Der HMW-map protein is useful for eliciting an immune response against Der HMW-map protein. The protein or a reagent comprising a non-proteinaceous epitope is useful for identifying an animal (e.g., dog, cat) susceptible to or having an allergic response to a mite. A therapeutic composition is useful for desensitising a host animal to an allergic response to a mite. The DNA and protein can be used in the detection of anti-Der HMW-map antibodies in animal fluids, and inhibition of immunoglobulin (Ig) sor Der HMW-map protein activity associated with a disease. Antibodies that bind to Der HMW-map are useful for inhibiting binding of proteins to Igs, to prevent immunocomplex formation, thus reducing hypersensitivity responses to mite allergens, and as vaccines against mite allergen hypersensitivity. Sequences AAU96314-AAU96342 represent Der HMW-map polypeptides of the invention
                                                                                                                   Sequence 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Der HMW-map; American house dust mite; antiallergic; mite; IgE; mite allergenic protein; immunoglobulin E; hypersensitivity;
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                                                                                                                                                                                                                                                                                                                                                                                                                 New mite allergenic protein isolated from Dermatophagoides, Der HMW-map protein, useful as a vaccine for treating mite
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-MAR-2002.
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                                                                                                                                                                                                                                                                                                               autoantigen in rheumatoid arthritis. The invention relates to peptides consisting of 16-55 amino acid residues comprising at least one of the following 19 sequences: LVCYYTSWS; FLCTHIIYS; IIYSFANIS; LKTLLSVGG; FIKSVPPF1; FDGLDLAWL; LYPGRRDKQ; YDIAKISQH; LDFISIMTY; FISIMTYDF; FRGQEDASP; YAVGYMLRL; MLRIGARAS; LAYYEICDF; LRGATVHRT; YLKDRQLAG; LAGAMVMAL; VMALDLDDF; or LDLDDFQGS. They can be used medically in antigen specific immunosuppressive therapy, particularly the treatment of T-cell mediated destruction of articular cartilage in autoimmune diseases (e.g. rheumatoid arthritis). They can also be used to detect activated autoreactive T cells in an individual. The peptides have a specific fimmunosuppressive drugs, and do not cause toxic side effects. The peptides are predominantly recognised by autoreactive T cells from rheumatoid arthritis patients, but rarely by those from healthy donors
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 HCV; hepatitis C virus; virucide; vaccine; MHC; HLA;
                           Synthetic peptide C127 derived from a conserved region of HCV.
                                                            17-JUN-2004
                                                                                         ADL26336;
                                                                                                                  ADL26336 standard; peptide; 15
                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    epitope present on human cartilage glycoprotein autoantigen in rheumatoid arthritis. The inventi
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Pred. No. 0.12;
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                                                                                                                              The invention relates to a novel method for isolating Hepatitis C Virus (HCV) peptides (HPs). The method of the invention has virucide activity, and may be useful in producing a vaccine. The method is useful for isolating Hepatitis C Virus peptides (HPs) which have a binding capacity to a MHC/HLA molecule or a complex comprising the HCV-peptide and the MHC/HLA molecule for preparing a vaccine against HCV infection. The T cell clone or a T cell population or preparation is useful for identifying heteroclitic epitopes or for preparing a composition for treating HCV infection. The present sequence represents a synthetic peptide derived from a conserved region of HCV.
                                                                                                                                                                                                                                                                                                                to a MHC/HLA molecule c
molecule by separating
bind to the molecule.
                                                                                                                                                                                                                                                                                                                                                                                   idm,
                                                                                                       Sequence 15 AA;
                                                                                                                                                                                                                                                                                     Example
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27-FEB-2003; 2003WO-EP002005
11-JUL-2003; 2003EP-00450171
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                         7 VPFYGRAXSIE 17
                                                 Similarity
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IPFYGKAIPIE
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Hepatitis C
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                                                                                 ADM29133 standard;
                                                        virus cellular immune response related
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                                                                                 peptide;
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DNA vaccine; vaccine; antigen gene; antigen; hepatitis C virus; HCV; recombinant adenovirus vaccine; adenovirus; HCV infection; hepatitis C virus infection; infection; virucide.

peptide

08-APR-2004.

WO2004028563-A1. Hepatitis C Synthetic.

virus

24-SEP-2003; 2003WO-KR001951

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RESULT 6
ABB55898
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Best Local :
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24-NOV-2000;
28-NOV-2000;
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06-NOV-2002;
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(DONG-)
(DAEW-)
  Screening, diagnosis or prognosis of vascular dementia (VD), useful
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diagnosis; prognosis; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vascular Dementia; VD; VD-associated protein isoform; VPI; screening;
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DONG-A PHARM CO LTD
DAEWOONG CO LTD.
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2000GB-00028734.
2000US-00724391.
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2002KR-00068496.
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(HCV), us
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The invention relates to screening, diagnosis or prognosis of Vascular Dementia (VD) in a subject comprising analysing body fluid from the subject by 2-dimensional (2-D) electrophoresis to generate a 2-D array

a 2-D array of

Claim 6; Page 36; 151pp; English.

Screening, diagnosis or prognosis of vascular dementia (VD), useful determining stage of VD and monitoring the effect of VD therapy, comprises analyzing body fluid by 2-dimensional electrophoresis for features correlated with VD.

for

WPI; 2001-557937/62.

HMAC,

Parekh RB,

Rohlff C;

15-MAR-2000; 2000GB-00006285 24-NOV-2000; 2000GB-00028734. 28-NOV-2000; 2000US-00724391

(OXFO-) OXFORD GLYCOSCIENCES UK LTD

20-SEP-2001. WO200169261-A2

14-MAR-2001; 2001WO-GB001106

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 determining stage of VD and monitoring the effect of VD therapy, comprises analyzing body fluid by 2-dimensional electrophoresis features correlated with VD.
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Pred. No. 0
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24-NOV-2000;
28-NOV-2000;
The invention relates to screening, diagnosis or prognosis of Vascular Dementia (VD) in a subject comprising analysing body fluid from the subject by 2-dimensional (2-D) electrophoresis to generate a 2-D array of features containing at least one chosen feature whose relative abundance correlates with the presence, absence, stage or severity of VD or predicts the onset or course of VD, especially detecting in a sample of cerebrospinal fluid (CSF) from the subject one of 223 VD-associated protein isoforms (VPIs) (ABB55801-ABB56295) as fully defined in the specification. Detecting VD-associated features and VPI is useful for the screening, diagnosis or prognosis of VD, for determining the stage or severity of VD, for identifying a subject at risk of VD or for monitoring the effect of therapy administered to a subject having VD. Nucleic acids
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                                                                                                                                                                                                                                                                        Screening, diagnosis or prognosis of vascular dementia (VD), use determining stage of VD and monitoring the effect of VD therapy, comprises analyzing body fluid by 2-dimensional electrophoresis features correlated with VD.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diagnosis;
                                                                                                                                                                                                                                      Claim 6; Page 32; 151pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vascular Dementia;
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2000US-00724391.
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2; Mismatches
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RESULT 9
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Best Local
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                                The present invention relates to the identification of depression associated protein isoforms (DPIs), particularly the tryptic digest peptides of these proteins. Some of the DPIs (AAUZ8404-AAUZ8625) described are decreased in the cerebrospinal fluid (CSF) of BAD (bipol.) affective disorder) subjects, whilst other DPIs (AAUZ8626-AAUZ8887) are increased in BAD subjects. Also described are peptide sequences identified from DPI-45 and DPI-213 and the nucleic acid sequence they demoded by. The sequences of the invention are useful for clinical screening, diagnosis, prognosis, therapy and prophylaxis of neuropsychiatric disorders e.g. BAD (also known as bipolar mood disorder BP), maniac-depressive illnesses, attention deficit disorders. The presensequence represents one of the DPI tryptic digest peptides of the presense invent
                                                                                                                                                                                                                                                                                                                                                                                             24-FEB-2000;
08-DEC-2000;
12-DEC-2000;
                                                                                                                                                                                                                                                         disorder, which i
neuropsychiatric
                                                                                                                                                                                                                                                                                                                WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; depression associated protein isoform; tryptic digest peptide; DPI; cerebrospinal fluid; CSF; BAD; bipolar affective disorder; neuropsychiatric disorder; bipolar mood disorder; neuroleptic; maniac-depressive illness; schizoaffective disorder.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                encoding a VPI or inhibiting the function of a VPI are useful for the treatment of VD and for gene therapy
                                                                                                                                                                                                                              Disclosure; Page 38; 153pp; English.
                                                                                                                                                                                                                                                                                     Novel
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                                                                                                                                                                                                                                                       nucleic acid encoding der, which is used for psychiatric disorders,
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                                                                                                                                                                                                                                                      a protein associated with bipolar affective diagnosis, prophylaxis and therapy of such as bipolar affective disorder.
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Query Match Best Local S Matches 7

Similarity 70.77; Conservative

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Score 41; DB 4 Pred. No. 0.99; 2; Mismatches

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Length 10

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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel nucleic acid encoding a protein associated with bipolar affective disorder, which is used for diagnosis, prophylaxis and therapy of neuropsychiatric disorders, such as bipolar affective disorder.
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70.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10
                                                                                                                                                                                                                                                                                Score 41; I
Pred. No. 0
                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Terrett JA,
                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                DB 4;
                                                                                                                                                                                                                                                                                                          Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tyson KL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of depression
                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    present
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RESULT 12
AAU25095
ID AAU25
XX
AC AAU25
XX
AC AAU25
XX
DT 18-DE
XX
DE Schiz
XX
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                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               associated protein isoforms (DPIs), particularly the tryptic digest peptides of these proteins. Some of the DPIs (AAU28404-AAU28625) described are decreased in the cerebrospinal fluid (CSF) of BAD (bipolar affective disorder) subjects, whilst other DPIs (AAU28626-AAU28887) are increased in BAD subjects. Also described are peptide sequences identified from DPI-45 and DPI-213 and the mucleic acid sequence they are encoded by. The sequences of the invention are useful for clinical screening, diagnosis, prognosis, therapy and prophylaxis of neuropsychiatric disorders e.g. BAD (also known as bipolar mood disorder, np). maniar-derressive illnesses attention affects in the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the contro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; depression associated protein isoform, tryptic digest peptide; DPI; cerebrospinal fluid; CSF; BAD; bipolar affective disorder; neuropsychiatric disorder; bipolar mood disorder, neuroleptic; maniac-depressive illness; schizoaffective disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP), maniac-depressive illnesses, attention deficit disorders, schizoaffective disorders. The present sequence represents one of the DPI tryptic digest peptides of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel nucleic acid encoding a protein associated with bipolar affective disorder, which is used for diagnosis, prophylaxis and therapy of neuropsychiatric disorders, such as bipolar affective disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-FEB-2000; 2000GB-00004412
08-DEC-2000; 2000GB-00030050
12-DEC-2000; 2000US-0254830P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-570626/64.
                          Schizophrenia-Associated Protein Isoform (SPI)
                                                                                18-DEC-2001
                                                                                                                                                                                   AAU25095 standard; peptide; 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (OXFO-) OXFORD GLYCOSCIENCES UK LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-FEB-2001; 2001WO-GB000786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200162787-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DPI tryptic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU28539 standard; peptide; 10
                                                                                                                                                                                                                                                                                                                   \vdash
                                                                                                                                                                                                                                                                                                                                                                 ω
                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                   LVMGIPTFGR 10
                                                                                                                                                                                                                                                                                                                                                                 LVMGVPFYGR 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ă,
                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             invention relates to the identification of depression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Page 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  digest peptide
                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Parekh RB,
                                                                                                                                                                                                                                                                                                                                                                                                                                            49.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                153pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rohlff C,
                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 41; I
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Terrett
                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 4;
0.99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JA,
                                peptide #324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      0
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RESULT 13
AAU26399
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
 24-FEB-2000;
08-DEC-2000;
12-DEC-2000;
                                                                                                                                                                        Human; Bipolar Affective Disorder; BAD; Depression-Associated feature; DF; Depression-Associated protein isoform; DPI; Cerebro-spinal fluid; CSF; antidepressant; antimanic; nootropic; tranquiliser; neuroleptic; attention deficient disorder; schizoaffective disorder;
                                                                                                                                                                                                                                                                           18-DEC-2001
                                                                                                                                                                                                                                                                                                                               AAU26399 standard; peptide; 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   These protein isoforms, e.g. SPI-206, SPI-238 and SPI-240 are detectable in cerebrospinal fluid, serum or plasma and are useful markers of schizophrenia. The sequences can be used for treatment and diagnosis of schizophrenia, screening, prognosis, monitoring the results of therapy, identifying patients most likely to respond to a particular therapy and identification of new targets for drug treatment. SPI DNA is useful as a nucleic acid probe to detect the presence of nucleic acids or SPIs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New schizophrenia associated protein isoforms and encoding nucleic acid molecules, useful for treatment, diagnosis and prognosis of schizophrenia and screening for potential drugs for treatment and new drug targets.
                                                      23-FEB-2001;
                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Schizophrenia-associated protein isoform; SPI; SPI-206; SPI-238; SPI-240; neuroleptic; gene therapy; cerebrospinal fluid; serum; plasma.
                                                                                                            WO200163294-A2
                                                                                                                                                                unipolar affective
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-FEB-2001; 2001WO-GB000792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-DEC-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200162785-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HMAC,
                                                                                                                                                                                                                                                                                                                                                                                                                             w
                                                                                                                                                                                                                                                                                                                                                                                                   \mathbf{\mu}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OXFORD GLYCOSCIENCES UK LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                             LVMGVPFYGR 12
                                                                                                                                                                                                                                                                                                                                                                                                   LVMGIPTFGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 35; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
2000GB-00004412.
2000GB-00030050.
2000US-0254830P.
                                                      2001WO-GB000791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    represents a schizophrenia-associated protein isoform (SPI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000GB-00004415.
2000US-00750395.
                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                disorder
                                                                                                                                                                                                                                                                                                                                                                                                   10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49.4%;
                                                                                                                                                                                                                                               Protein isoform DPI-184 #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rohlff C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 41; DB Pred. No. 0.99
2; Mismatches
                                                                                                                                                                                                                                                                                                                                ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Terrett JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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24-FEB-2000; 2000GB-00004412 08-DEC-2000; 2000GB-00030050 12-DEC-2000; 2000US-0254830P

23-FEB-2001; 2001WO-GB000791

30-AUG-2001. WO200163294-A2

sapiens.

Herath HMAC,

Parekh

RB,

Rohlff C

(OXFO-) OXFORD GLYCOSCIENCES UK LTD

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RESULT 14
AAU26439
ID AAU266
XX AAU26
AC AAU26
XX Depre
XX Human
KW DF; C
KW CSF;
KW CSF;
KW unipo
XX Homo
N WO200
XX Homo
PN WO200
XX Homo
PN W0200
XX Homo
PN
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             used to screen, diagnose or prognose of BAD or unipolar depression, determine the stage or severity of BAD or unipolar depression, identify a subject at risk of developing BAD or unipolar depression, or monitor the effect of therapy in a subject. They are also used to screen for or identify agents that interact with a DPI. These agents, antibodies agents the DPIs, and nucleic acids encoding the DPIs are used to treat or prevent BAD or unipolar depression. Diseases that can be treated are attention deficient disorder, a schizoaffective disorder, a bipolar or a unipolar affective disorder. The DPIs are used in proteomics. The proteomic approach of using DPIs for screening, diagnosis or prognosis of EAD or unipolar depression overcomes the problems of using gene expression analysis, such as not being able to obtain central nervous system (CNS) tissue from a living patient under normal circumstances. The present sequence is a DIP increased in the CSF (cerebro-spinal fluid) of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; Bipolar Affective Disorder; BAD; Depression-Associated feature; DF; Depression-Associated protein isoform; DPI; Cerebro-spinal fluid; CSF, antidepressant; antimanic; nootropic; tranquiliser; neuroleptic; attention deficient disorder; schizoaffective disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unipolar affective disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU26439 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         subjects having BAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to a preparation comprising an isolated Bipolar Affected Disorder (BAD) Associated Protein Isoform (DPIs). The DPI's a used to screen, diagnose or prognose of BAD or unipolar depression,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Preparation for diagnosing or treating bipolar affected disorder (BAD) unipolar depression, or for screening for modulators, comprises a BAD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Depression-Associated Protein isoform DPI-234.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Herath HMAC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (OXFO-) OXFORD GLYCOSCIENCES UK LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LVMGVPFYGR 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein isoform.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide; 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49.4%;
70.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 41; DB 4;
Pred. No. 0.99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
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WPI;

2001-582081/65

Preparation for diagnosing or treating bipolar affected disorder (BAD) unipolar depression, or for screening for modulators, comprises a BAD-

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RESULT 15
AAU26186
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Affected Disorder (BAD) Associated Protein Isoform (DFIs). The DFI's are used to screen, diagnose or prognose of BAD or unipolar depression, identify a celebratine the stage or severity of BAD or unipolar depression, identify a subject at risk of developing BAD or unipolar depression, or monitor the effect of therapy in a subject. They are also used to screen for or contentify agents that interact with a DFI. These agents, antibodies capather the DFIs, and nucleic acids encoding the DFIs are used to treated are cor prevent BAD or unipolar depression. Diseases that can be treated are contention deficient disorder, a schizoaffective disorder, a bipolar or a cunipolar affective disorder. The DFIs are used in proteomics. The proteomic approach of using DFIs for screening, diagnosis or prognosis of C BAD or unipolar depression overcomes the problems of using gene contention analysis, such as not being able to obtain central nervous system (CNS) tissue from a living patient under normal circumstances. The present sequence is a DFP increased in the CSF (cerebro-spinal fluid) of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unipolar depression, or for associated protein isoform.
Preparation for diagnosing
                                 WPI; 2001-582081/65.
                                                                                                                           24-FEB-2000; 2000GB-00004412.
08-DEC-2000; 2000GB-00030050.
12-DEC-2000; 2000US-0254830P.
                                                                                                                                                                                                                             30-AUG-2001.
                                                                                                                                                                                                                                                             WO200163294-A2
                                                                                                                                                                                                                                                                                                                           unipolar affective disorder.
                                                                                                                                                                                                                                                                                                                                          CSF; antidepressant; attention deficient of
                                                                                                                                                                                                                                                                                                                                                       Human; Bipolar Affective Disorder; BAD; Depression-Associated feature DF; Depression-Associated protein isoform; DPI; Cerebro-spinal fluid; CSF; antidepressant; antimanic; nootropic; tranquiliser; neuroleptic;
                                                                                                                                                                                                                                                                                                                                                                                                                      Depression-Associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU26186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU26186 standard; peptide; 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a preparation comprising an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 8; Page 38; 163pp; English.
                                                                                                                                                                                              23-FEB-2001; 2001WO-GB000791.
                                                                                                (OXFO-)
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                                                                                                OXFORD GLYCOSCIENCES UK LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                 Parekh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12
                                                                                                                                                                                                                                                                                                                                        ; antimanic; nootropic; tradisorder; schizoaffective
                                                             RB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  49.4%;
70.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                      Protein isoform DPI-49 #7
                                                               Rohlff
 or treating bipolar affected disorder (BAD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 41; DB 4
Pred. No. 0.99;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       isolated Bipolar
DPIs). The DPI's are
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unipolar depression, or for associated protein isoform.
                                                                                      or for screening
                                                                                       for modulators, comprises a BAD-
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CC Affected Disorder (BAD) -Associated Protein Isoform (DPIS). The DPI's are CC used to screen, diagnose or prognose of BAD or unipolar depression, identify a gettermine the stage or severity of BAD or unipolar depression, identify a cc determine the stage or severity of BAD or unipolar depression, identify a getter the trisk of developing BAD or unipolar depression, or monitor the cc ffect of therapy in a subject. They are also used to screen for or complete that interact with a DPI. These agents, antibodies against the DPIs, and nucleic acids encoding the DPIs are used to treat cc argainst the DPIs, and nucleic acids encoding the DPIs are used to treat cc unipolar deficient disorder, a schizoaffective disorder, a bipolar or a culpolar affective disorder. The DPIs are used in proteomics. The CC proteomic approach of using DPIs for screening, diagnosis or prognosis of CC BAD or unipolar depression overcomes the problems of using gene cxpression analysis, such as not being able to obtain central nervous system (CNS) tissue from a living patient under normal circumstances. The Dresent sequence is a DIP decreased in the CSF (cerebro-spinal fluid) of antipolar being able to obtain central nervous. The invention relates to a preparation comprising an isolated Bipolar The DPI's are cne of ō. þ þ

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                                 Matches
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Best Local
                                                                   Sequence 10 AA;
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               3 LVMGVPFYGR 12
                                Similarity 7; Conserv
||||:| :||
LVMGIPTFGR 10
                                 Conservative
                                         49.4%;
70.0%;
                                         Score 41; I
Pred. No. 0.
                                 Mismatches
                                                  DB 4;
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                                                  Length 10
                                 Indels
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                                 Gaps
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Schizophrenia; neuroleptic; diagnostic; neuropsychiatric disorder; neurological disorder; neuropathy.
                                                                                                                                 Homo sapiens.
                                                                                                                                                             Schizophrenia-associated isoform peptide #324.
                                                                                                                                                                       24-OCT-2001
                                                                                                                                                                                            AAU15439 standard;
                                                                                                                        WO200163293-A2
                                                                                                                                                                       (first entry)
                                                                                                                                                                                            peptide; 10
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24-FEB-2000; 2000GB-00004415. 28-DEC-2000; 2000US-00750395. 23-FEB-2001; 2001WO-GB000783 30-AUG-2001

(OXFO-) OXFORD GLYCOSCIENCES UK LTD Parekh RB, Rohlff C;

WPI; 2001-502868/55.

Diagnosing and monitoring Schizophrenia by detecting the presence of Schizophrenia Associated Frotein Isoforms in samples of cerebrospinal fluid.

Page 35; 160pp; English.

The invention relates to methods and compositions for screening, diagnosis and prognosis of Schizophrenia. The method involves de the presence of Schizophrenia (SCH) Associated Features (SFs) are

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RESULT 17
ABB52306
ID ABB52
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
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                                                                                           Screening for Alzheimer's disease in a mammal, by making two-dimensional array of a feature whose relative abundance correlates with disease, and comparing with abundance of the feature in samples of healthy persons.
                                                                                                                                                                                                                                                                                                                                          Durham
Potter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-APR-2000;
28-NOV-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; neuroprotective; nootropic; gene therapy; vaccine; Alzheimer's disease, Alzheimer's Disease-Associated Feature; Alzheimer's Disease-Associated Protein Isoform; API; tryptic Expression Reference Protein Isoform; ERPI; proteolysis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                            (OXFO-)
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                                                                                                                                                                                                                                    WPI; 2001-639384/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      eapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                         OXFORD GLYCOSCIENCES UK LTD PFIZER INC.
                                                                                                                                                                                                                                                                                                       RR,
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                                                                                                                                                                                                                                                                                                   Friedman DI
Rohlff C,
R, White F,
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2000US-0253647P.
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                                                                                                                                                                                                                                                                                                   n DL, Herath HMAC
C, Silber BM, St
F, Williams SA;
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70.0%;
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Pred. No. 0.99;
2; Mismatches
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Sunderland PT;
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Example; Page

33; 162pp; English

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Query Match

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Score

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Sequence 10

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RESULT 18
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Best Local (
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                             Alzheimer's disease (AD) to determine the stage or severity of AD in subject, to identify subject at risk of developing AD, or to monitor effect of therapy administered. The methods comprise analysing a test sample of body fluid by 2-dimensional electrophoresis to generate a 2 dimensional array of AD-associated features (AFs). The method alternatively comprises quantitatively detecting in a sample of body fluid from the subject, one or more AD-associated protein isoform 'ANABRES710.ARRECTOR'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to methods for the screening, diagnosis and prognosis of Alzheimer's disease. The methods involve the detection of Alzheimer's Disease-Associated Features (AFs) and Alzheimer's Disease-Associated Protein Isoforms (APIS) in cerebrospinal fluid, serum or plasma. The abundance of the AFs and APIS is then normalised to an Expression Reference Protein Isoform (ERPI) in order to determine whether a patient is suffering from, or has a predisposition to, Alzheimer's Disease. The relative abundance of the AFs and APIS correlates with the severity of Alzheimer's Disease. The present sequence is a peptide produced from an API by proteolysis
                                                                                                                                                                                             Screening or diagnosing of Alzheimer's disease (AD) determine or severity of AD in a subject, comprises analyzing a test sam fluid from the subject by 2-dimensional electrophoresis.
                                                                                                                                                                      Claim
                                                                                                                                                                                                                                                        WPI; 2003-371957/35
                                                                                                                                                                                                                                                                                                               Durham LK,
                                                                                                                                                                                                                                                                                                                                                                                                                  03-OCT-2002; 2002WO-US031642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alzheimer's Disease-associated protein isoform
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alzheimer's Disease-associated protein isoform,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABR59112 standard; peptide;
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                          ABR58710-ABR59184)
                                                                                                                                                                                                                                                                                     Sunderland PT,
                                                                                                                                                                                                                                                                                                   Potter DM,
                                                                                                                                                                                                                                                                                                                                                                                     03-OCT-2001; 2001US-0326708P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2003028543-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nootropic; Neuroprotective; Alzheimer's disease; API; human;
                                                                                                                                                                                                                                                                                                                                            (OXFO-)
                                                                                                                                                                                                                                                                                                                                                         (PFIZ)
                                                                                                                                                                   2; Page 51; 179pp; English
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7; Conserve
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OXFORD GLYCOSCIENCES UK LTD.
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Rohlff C, S
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                                                                                                                                                                                                                                                                                     Townsend
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70.0%;
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e WF, Williams SA;
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                                                                                                                                             The invention relates to a novel method for screening or diagnosis of Alzheimer's disease (AD) in a subject, determining the stage or severity of AD, identifying a subject at risk of developing AD or monitoring the effect of therapy administered to a subject having AD, by analysing body fluid to generate a two-dimensional array of Alzheimer's disease-associated features (AFs) such as AF-200, AF-201, AF-203, AF-204, AF-205, etc., and comparing the abundance of AFs with a control. The method of the invention has nootropic and neuroprotective applications and may be useful for screening or diagnosis of Alzheimer's disease (AD) in a subject, determining the stage or severity of AD in a subject, identifying a subject at risk of developing AD or monitoring the effect of therapy administered to a subject having AD. The body fluid is cerebrospinal fluid (CSF). The current sequence is that of a human Alzheimer's disease-associated protein isoform (API) tryptic digest
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                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                       disease-Associated Features.
                                                                                                                                                                                                                                                                                                                                                                                                 Screening or diagnosis of Alzheimer's disease (AD) in subject, determining stage or severity of AD, identifying subject at risk of developing AD, or monitoring effect of therapy, by detecting Alzheimer's
                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2004-318939/30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Durham LK,
Potter DM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CSF; Alzheimer's disease-associated protein isoform; API; tryptic digest;
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OXFORD GLYCOSCIENCES UK LTD.
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                                                                                                                                                                                                                                                                                                                                                            277; 208pp; English.
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Query Match Best Local S Matches 7

Similarity 70.0

49.4%;

Score 41; DB 8 Pred. No. 0.99;

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                                                                          The invention describes an isolated nucleic acid molecule (I) that CC hybridises to two short nucleic acid sequences and the 1515 amino acid compared to the short nucleic acid sequences and the 1515 amino acid compared to the short nucleic acid sequences and the 1515 amino acid compared to the following an isolated peptide coded for by the nucleic acid molecule above, or comprising an isolated human protein comprising one or composition and stated human protein comprising one or composition generated to the following sequences: Glu-Leu-App-Val-Leu-Gly-Arg; methods for codingnosing Schizophrenia; antibodies capable of immunospecific binding to a Schizophrenia; and methods of screening for agents that modulate a contracteristic (e.g., expression or binding activity) of an SPI, an SPI canalogue, or an SPI-related polypeptide. The nucleic acid molecule and concoded proteins, as well as the methods and compositions are useful for screening, diagnosing, and prognosing Schizophrenia, for monitoring the effectiveness of Schizophrenia treatment, for identifying patients most concepting drug. They are also useful for screening modulators of Schizophrenia. This is the amino acid sequence a schizophrenia-associated protein isoform increased in the cerebrospinal fluid of schizoprenia.
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for monitoring the effectiveness of Schizophrenia
screening agents for treating Schizophrenia.
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28-DEC-2000;
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Schizophrenia-Associated Protein Isoform; SPI; schizophrenia screening
schizophrenia diagnosing; schizophrenia prognosing;
Schizophrenia treatment; drug development; cerebrospinal fluid; human
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Sequence
                                                             patients
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(TERR/)
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TERRETT J A.
TYSON K L.
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2000US-00750395.
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nia treatment
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RESULT 21 ADR19350 ID ADR1

ADR19350 standard;

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04-NOV-2004

(first entry)

ADR19350;

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                                                                                                     CC The invention relates to a novel method for assessing, screening, CC diagnosing or prognosing chronic tissue damage in a subject identifying CC a subject at risk of developing chronic tissue damage, or monitoring the effect of therapy administered to a subject having chronic tissue damage. CC The method comprises detecting and/or quantifying in a biological sample CC from the subject a tissue repair-associated protein isoform (TRPI), given CC in the specification. The invention further comprises: an isolated or recombinant TRPI selected from the proteins listed in the specification; CC screening for or identifying an agent capable of modulating the CC expression or activity of the TRPI or a TRPI related polypeptide; a ccentraceutical composition comprising the TRPI cited above or an active agent that modulates the expression and/or activity of the TRPI or a TRPI capable or a TRPI or a TRPI capable of the TRPI or a TRPI capable or a TRPI or a treating chronic tissue damage. The novel compositions have antiulcer and treating chronic tissue damage. The novel compositions have antiulcer or an active such as a chronic dermal ulcer. These may also be used for drug screening cor development, or for screening or identifying agents capable of composing the activity of TRPI or TRPI related polypeptides. This sequence represents a TRPI derived human tryptic digest peptide. The CC associated protein isoform of the invention.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Diagnosing, or monitoring the effect of therapy of, chronic tissue (e.g. chronic dermal ulcer) comprises detecting and/or quantifying Repair-Associated protein isoform in a sample (e.g. wound exudate)
                                                                                                     Sequence 10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 7; SEQ ID NO 12; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the subject.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tissue damage; chronic; tissue repair-associated protein isoform; TRPI; antiulcer; vulnerary; chronic dermal ulcer; human; tryptic digest;
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 3 LVMGVPFYGR 12
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OXFORD GLYCOSCIENCES UK LTD
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, Patel TP;
                                   Conservative
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                                                 49.4%;
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                                Score 41; DB Pred. No. 0.99
2; Mismatches
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                                                 DB 8;
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                                                                Length 10;
                                 Indels
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                                Gaps
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RESULT 23
ADV22957
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ADV22957 standard;

peptide; 18

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10-MAR-2005 ADV22957;

(first entry)

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RESULT 22
ADL26337
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                                     Query Match
Best Local
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                                                                                                 The invention relates to a novel method for isolating Hepatitis C Virus (HCV) peptides (HPs). The method of the invention has virucide activity, and may be useful in producing a vaccine. The method is useful for isolating Hepatitis C Virus peptides (HPs) which have a binding capacity to a MHC/HLA molecule or a complex comprising the HCV-peptide and the MHC/HLA molecule for preparing a vaccine against HCV infection. The Teells, a T cell clone or a T cell population or preparation is useful for identifying heteroclitic epitopes or for preparing a composition for treating HCV infection. The present sequence represents a synthetic peptide derived from a conserved region of HCV.
                                                                            Sequence 15
                                                                                                                                                                                                                                                                                 Isolating Hepatitis C Virus peptides (HPs) which have a binding capacity to a MHC/HLA molecule or a complex comprising the HCV-peptide and the molecule by separating the complex from the HCV-peptides which do not
                                                                                                                                                                                                                                                                                                                                                                         Buschle M,
                                                                                                                                                                                                                                                                                                                                                                                                                            13-SEP-2002; 2002AT-00001376
27-FEB-2003; 2003WO-EP002005
11-JUL-2003; 2003EP-00450171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  major
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HCV; hepatitis C virus; virucide; vaccine; MHC; HLA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-JUN-2004
                                                                                                                                                                                                                                               Example 1; Page 31;
                                                                                                                                                                                                                                                                                                                                       WPI; 2004-269899/25.
                                                                                                                                                                                                                                                                                                                                                               Zauner W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-AUG-2003; 2003WO-EP009482
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  histocompatibility
  7
                        l Similarity
6; Conserv
                                                                                                                                                                                                                                                                        e by separating the molecule.
 VPFYGRAXSIE 17
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LVMGIPTFGR
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Zinke S,
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                          Conservative
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                                     48.2%;
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Kirlappos
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complex; human
                                                                                                                                                                                                                                            English.
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                                     Score 40; DB 8;
Pred. No. 2.4;
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                                                  Length 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       region of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antigen
                         0;
                          Gaps
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Vaccine; virucide; antigen; autoimmune disease; infection;

tumor;

H77 immunogenic peptide

#198

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The invention relates to the use of at least one set of peptides in the comprehence of a respective set comprise different portions of an anion acid sequence corresponding to a single polypeptide of interest and controlled are an antigen-presentity or similarity to at least one other controlled are an antigen-presenting cell which has been contacted with the peptides above and thus presents the peptides, a population of such the comprise of peptides above and thus presents the peptides, a population of such the comprising at least one set of the peptides (and a carrier and/or comprising at least one set of the peptides (and a carrier and/or comprising at least one set of the peptides (and a carrier and/or comprising at least one set of the peptides (and a carrier and/or condition associated with the presence of a polypeptide of interest one set of the peptides, a method for modulating an immune response to a polypeptide of interest one set of the peptides, a method for treatment and/or prophylaxis of a disease or condition associated with the presence of a polypeptide of interest is also a subject to a target antigen. The polypeptide of interest is also a pathogenic organism selected from yeast, viruses, bacteria, helminths, protocopic organism selected from yeast, viruses, bacteria, helminths, compared to a perform an end mycoplasmas. The disease or condition-associated polypeptide of interest is also a pathogenic organism selected from yeast, viruses, bacteria, helminths, compared to a protocopic propertide in the protocopic propertide in the protocopic propertide in the protocopic propertide in the protocopic propertide in the protocopic propertide in the protocopic propertide in the protocopic propertide in the protocopic propertide in the protocopic propertide in the protocopic propertide in the protocopic propertide protocopic propertide in the protocopic propertide protocopic propertide protocopic propertide protocopic propertide protocopic propertide protocopic protocopic propertide protocopic protocopi
                   Query Match
Best Local
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                                                                                Sequence 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; SEQ ID NO 1377; 645pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           viral, bacterial,
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25-MAR-2004;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hepatitis C virus strain H77
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for modulating
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of at least one set of peptides in the preparation of a medicament modulating an immune response, and for treating cancer or yeast,
Similarity 6; Conserv
                                                                                                                      protein
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2004AU-00901589.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protozoal and mycoplasma
                   48.2%;
Score 40; DB Pred. No. 3; Mismatches
                                      9;
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                                      Length 18;
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Conservative

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RESULT 24
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Constraint of a medicament for modulating an immune response, where contracts and constraint of a medicament for modulating an immune response, where contracts and constraint all sequence corresponding to a single polypeptide of interest and constraint sequence identity or similarity to at least one other concluded are an antigen-presenting cell which has been contracted with the peptides does not have presented the peptides, a population of such collises above and thus presents the peptides, a population of such comprising at least one set of the peptides, a population of such comprising at least one set of the peptides (and a carrier and/or comprising antigen-specific lymphocytes, a composition of interest comprising antigen-specific lymphocytes, a composition of interest constituents of the peptides (and a carrier and/or condition associated with the presence of a polypeptide of interest can a composition of matter for modulating an immune response to a polypeptide of interest can a composition of matter for modulating an immune response in a composition associated with the presence of a polypeptide of interest can a composition of matter for modulating an immune response in a constance of a polypeptide of interest is also a constance of a pathogenic organism selected from yeast, viruses, bacteria, helminths, protocome and mycoplasmas. The disease or condition-associated by a cancer selected from melanoma, lung cancer, brader cancer, bladder cancer, kidney cancer, post transplant concer, bladder cancer, kidney cancer, post transplant concer, bladder cancer selected from melanoma, lung cancer cancer, prosenting cells or their precursors are useful in the modulation amedicament for the treatment of a disease or condition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Use of at least one set of peptides in the preparation of a medicament for modulating an immune response, and for treating cancer or yeast,
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breast tumor; uterine cervix tumor; prostatic cancer; colon tumor;
pancreas tumor; stomach tumor; bladder tumor; kidney tumor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          viral, bacterial, protozoal and mycoplasma
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25-MAR-2004;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HCV H77 immunogenic peptide #199.
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2004AU-00901589.
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RESULT 25
ABR59057
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Best Local S
Matches 6
            The present invention relates to methods for screening or diagnosing Alzheimer's disease (AD) to determine the stage or severity of AD in a subject, to identify subject at risk of developing AD, or to monitor the effect of therapy administered. The methods comprise analysing a test sample of body fluid by 2-dimensional electrophoresis to generate a 2-dimensional array of AD-associated features (AFS). The method alternatively comprises quantitatively detecting in a sample of body fluid from the subject, one or more AD-associated protein isoforms (APIs,
                                                                                                                                                                                                                                                                                                                                                 Screening or diagnosing of Alzheimer's disease (AD) determine the stage or severity of AD in a subject, comprises analyzing a test sample of body fluid from the subject by 2-dimensional electrophoresis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in a subject, which disease or condition is associated with the presence or aberrant expression of a target antigen, where the antigen-presenting cells or their precursors have not been subjected to activating conditions but have been contacted with an antigen that corresponds to the target antigen to express a processed or modified form of the antigen for presentation to the subject's immune system. The present sequence is one of a set of overlapping immunogenic peptides derived from a Hépatitis
                                                                                                                                                                                                                                                                                            Claim 2; Page 47; 179pp; English.
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Potter DM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2003028543-A2
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ABR58710-ABR59184)
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ares HD, Stiger TR;
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Query Match 47.0%; Best Local Similarity 70.0%; Matches 7; Conservative

Score 39; DB 6; Pred. No. 2.4; 2; Mismatches

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Search completed: January 26, Job time : 61.7414 secs 2006, 07:58:05

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Result
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Maximum Match 100%
Listing first 100 summaries
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Perfect score:
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1: /cgn2_6/ptodata/1/iaa/5_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/H_COMB.comB.pep:*

4: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
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US-09-171-705-39
US-09-171-705-40
US-09-171-705-40
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US-09-171-705-40
US-09-67-757-40
US-09-635-886C-146
US-08-974-685-14
US-08-974-685-14
US-08-974-947-17
US-08-851-843A-171
US-08-854-050-171
US-08-854-050-171
US-09-430-323-171
US-09-430-323-171
US-09-430-323-171
US-09-171-181B-291
US-09-171-456-253-171
US-09-171-705-38
US-09-657-757-38
US-09-657-757-38
US-09-657-757-38
US-08-444-818-420
US-10-038-972A-4
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US-09-588-542C-22
US-09-499-203-7
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 39, Appl
39, Appl
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273, Appl
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2146, Appl
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2171, Appl
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3-08-564-972-23
Sequence 33, Appl Sequence 33, Appl Sequence 33, Appl Sequence 12, Appl Sequence 2574, Appl Sequence 2574, Appl Sequence 2574, Appl Sequence 2574, Appl Sequence 25, Appl Sequence 27, Appl Sequence 20, Appl Sequence 21, Appl Sequence 27, Appl Sequence 1092, Appl Sequence 117, Ap
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ALIGNMENTS

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APPLICANT: Weber, ETIC K.

TITLE OF INVENTION: AND USES THEREOF

FILE REFERENCE: AL-2-C3

CURRENT APPLICATION NUMBER: US/09/292,225

CURRENT FILING DATE: 1999-04-15

EARLIER FILING DATE: 1999-05-13

EARLIER APPLICATION NUMBER: 60/098,295

EARLIER FILING DATE: 1998-05-13

EARLIER APPLICATION NUMBER: 60/098,565

EARLIER APPLICATION NUMBER: 60/098,565

EARLIER FILING DATE: 1998-04-17

SARLIER APPLICATION NUMBER: 60/098,565

EARLIER APPLICATION NUMBER: 60/098,565

EARLIER APPLICATION NUMBER: 60/098,565

EARLIER APPLICATION NUMBER: 09/062,013

EARLIER APPLICATION NUMBER: 09/062,013

EARLIER PILING DATE: 1998-04-17

NUMBER OF SEQ ID NOS: 49

SOPTWARE: Patentin Ver. 2.0

SEQ ID NO 10

LENGTH: 17

LENGTH: 17

TYPE: PRT
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US-09-171-705-39
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                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: BOOTS, ANNA M.H.
APPLICANT: VERHEIJDEN, GILBERTUS F.M.
APPLICANT: VERHEIJDEN, GILBERTUS F.M.
TITLE OF INVENTION: NOVEL PEPTIDES SUITABLE FOR USE IN ANTIGEN SPECIFIC TITLE OF INVENTION: IMMUNOSUPPRESSIVE THERAPY
FILE REFERENCE: 0/96198 US
CURRENT APPLICATION UNVESER: US/09/171,705
CURRENT FILING DATE: 1999-02-09
NUMBER OF SEQ ID NOS: 78
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Patent No. 6184204
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                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 39
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Matches 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Dermatophagoides farinae FEATURE: OTHER INFORMATION: At location 14,
                                                                                                                                                                            OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE: DERIVED FROM OTHER INFORMATION: SEQUENCE OF HUMAN CARTILAGE (HC) -39 PROTEIN
                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                       TYPE: PRT
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                             KLVMGVPFYGRA 13
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Pred. No. 0.037;
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                           US-09-657-757-40 ; Sequence 40, Application US/09657757
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Sequence 39, Application US/09657757

PATENT NO. 6881824

GENERAL INFORMATION:
APPLICANT: BOOTS, ANNA M.H.
APPLICANT: VERHEIJDEN, GILBERTUS F.M.
TITLE OF INVENTION: NOVEL PEPTIDES SUITABLE FOR US:
TITLE OF INVENTION: IMMUNOSUPPRESSIVE THERAPY
FILE REFERENCE: O/96198 US
CURRENT APPLICATION NUMBER: US/09/657,757

CURRENT APPLICATION NUMBER: US/09/657,757
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PRIOR FILING DATE: 1998-10-23
NUMBER OF SEQ ID NOS: 78
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 39
LENGTH: 16
TYPE: PRT
ORGANISM: Artificial Sequence
PEATIND:
                                                                                                                                                        ; OTHER INFORMATION: Description of Artificial Sequence: DERIVED FROM ; OTHER INFORMATION: SEQUENCE OF HUMAN CARTILLAGE (HC) -39 PROTEIN US-09-171-705-40
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US-09-171-705-40
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OTHER INFORMATION: Description of Artificial Sequence: DERIVED FROM
OTHER INFORMATION: SEQUENCE OF HUMAN CARTILLAGE (HC) -39 PROTEIN
US-09-657-757-39
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CURRENT FILING DATE: 1999-02-09
RUMBER OF SEQ ID NOS: 78
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 40
LENGTH: 16
TYPE: PRT
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Patent No. 6184204
GENERAL INFORMATION:
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APPLICANT: VERHEIJDEK, GILBERTUS F.M.
TITLE OF INVENTION: NOVEL PEPTIDES SUITABLE FOR USE IN ANTIGEN SPECIFIC TITLE OF INVENTION: IMMUNOSUPPRESSIVE THERAPY
FILE REFERENCE: 0/96198 US
                                                                                                                                                                                                                   ORGANISM: Artificial Sequence FEATURE:
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41.7%;
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66.7%;
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                                                                             Score 36; DB 2
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                                                         RESULT 7
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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: DERIVED FROM
; OTHER INFORMATION: SEQUENCE OF HUMAN CARTILAGE (HC) -39 PROTEIN
US-09-657-757-40
                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: HCV 1378 (peptide 29.0035)
US-09-311-784A-273
                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Expression Vectors for Stimulating an TITLE OF INVENTION: Immune Response and Methods of Using FILE REFERENCE: 39963-20022.01
CURRENT APPLICATION NUMBER: US/99/311,784A
CURRENT FILING DATE: 1999-05-13
PRIOR APPLICATION NUMBER: US 60/085,751
PRIOR APPLICATION NUMBER: US 60/085,751
NUMBER OF SEQ ID NOS: 463
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: BOOTS, ANNA M.H.
APPLICANT: VERHEIJDEN, GILBERTUS F.M.
APPLICANT: VERHEIJDEN, GILBERTUS F.M.
TITLE OF INVENTION: NOVEL PEPTIDES SUITABLE FOR USE IN ANTIGEN SPECIFIC TITLE OF INVENTION: IMMUNOSUPPRESSIVE THERAPY
FILE REFERENCE: O/96198 US
CURRENT APPLICATION NUMBER: US/09/657,757
CURRENT FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: US/09/171,705
PRIOR PILING DATE: 1998-10-23
NUMBER OF SEQ ID NOS: 78
SOFTWARE: Patentin Ver. 2.0
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                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                  FEATURE:
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                                                                                                                                                                                             Local Similarity
nes 5; Conser
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||:|:|::::
1 MGIPTFGRSFTL 12
                                                                                                                                                     7 VPFYGRA 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ishioka, Glenn Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hermanson, Gary G.
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                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43.4%;
41.7%;
                                                                                                                                                                                                                42.2%;
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Pred. No. 4.2;
                                                                                                                                                                                           Score 35; DB 2; Le
Pred. No. 4.6e+05;
2; Mismatches 0;
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Query Match
Best Local Similarity
Thes 5; Conserve
                                                                                          US-08-974-685-146
                                                                                                            RESULT 9
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                                                                                                                                                                                                                                                                                                                    ; TYPE: PRT
; ORGANISM: hepatitis C virus
US-08-974-690C-146
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               Sequence 146, Application US/08974685
Patent No. 6689368
GENERAL INFORMATION:
APPLICANT: LEROUIX-ROELS, GEER
                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 146
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Best Local Similarity 71.4%;
Matches 5; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: LEROUX-ROELS, Geert
APPLICANT: DELEYS, Robert
APPLICANT: MAERTENS, Geert
TITLE OF INVENTION: IMMUNODOMINANT HUMAN T CELL EPITOPES OF HEPATITIS
TITLE OF INVENTION: VIRUS
FILE REFERENCE: 2551-94
CURRENT APPLICATION NUMBER: US/08/974,690C
CURRENT FILING DATE: 1997-11-19
                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 286 SOFTWARE: PatentIn version
                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: PCT/EP94/03555
PRIOR FILING DATE: 1994-10-28
PRIOR APPLICATION NUMBER: EP 93402718.6
PRIOR FILING DATE: 1993-11-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/08/635,886C CURRENT FILING DATE: 1996-04-25 PRIOR APPLICATION NUMBER: PCT/EP94/03555 PRIOR FILING DATE: 1994-10-28 PRIOR APPLICATION NUMBER: EP 3402718.6 PRIOR FILING DATE: 1993-11-04 NUMBER OF SEQ ID NOS: 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: MAERTENS, Geert
TITLE OF INVENTION: IMMUNODOMINANT HUMAN T CELL EPITOPES OF HEPATITIS C
TITLE OF INVENTION: VIRUS
FILE REFERENCE: 2752-18
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TYPE: PRT
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DELEYS,
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ROBERT
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Pred. No. 4
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Pred. No. 4.6e+05;
                 GEERT
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TITLE OF INVENTION: IMMUNODOMINANT HUMAN T CELL EPITOPES

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US-09-709-947-1
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                                                                                                                       PRIOR APPLICATION NUMBER: US 60/172,170
PRIOR FILING DATE: 1999-12-17
PRIOR APPLICATION NUMBER: US 60/178,860
PRIOR FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: US 60/201,721
PRIOR FILING DATE: 2000-05-03
NUMBER OF SEQ 1D NOS: 23
SOFTWARE: PatentIn Ver. 2.0
                                                                                                 SOFTWARE:
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 5; Conserve
                                                                                                                                                                                                                                                                          FILE REFERENCE: MTP-024
FILE REFERENCE: MTP-024
CURRENT APPLICATION NUMBER: US/09/709,947
CURRENT FILING DATE: 2000-11-10
PRIOR APPLICATION NUMBER: US 60/165,173
PRIOR FILING DATE: 1999-11-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence 1, Application US/09709947
Patent No. 6936424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Watkins, TITLE OF INVENTION:
FEATURE: OTHER INFORMATION: Description of Artificial Sequence:Tryptic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (703) 816-400
TELEPAX: (703) 816-4100
INFORMATION FOR SEQ ID NO: 146:
SEQUENCE CHARACTERISTICS:
                                                            LENGTH: 13
TYPE: PRT
                                    ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/974,685
FILING DATE: 19-No. 6689368-1997
CLASSIFICATION: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: BYRNE, THOMAS E.
REGISTRATION NUMBER: 32,205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: peptide SEQUENCE DESCRIPTION: SEQ ID NO: 146:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 1487-11 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PETENTIN Release #1.0, CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
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STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
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ULE TYPE: peptid
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                                                                                                                                                                                                                                                                                                                                                                                                                     Materials and Methods for Detection and Treatment of
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71.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     816-4000
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Pred. No. 4.6e+05;
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Query Match
Best Local Similarity
Thes 5; Conserve
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LOCATION: 1.15
OTHER INFORMATION:
OTHER INFORMATION:
US-08-851-843A-171
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                                                                                                                                                                TELEFAX: (415) 576-0300 INFORMATION FOR SEQ ID NO: : SEQUENCE CHARACTERISTICS: LENGTH: 15 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/851,843A
FILING DATE: 06-MAY-1997
                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Apple, Randolph T.
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 011
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Andrews, William H.
TITLE OF INVENTION: No. 6093809el Telomerase
NUMBER OF SEQUENCES: 225
CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
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PRIOR APPLICATION DATA:
US 08/724,643
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APPLICATION NUMBER: |
FILING DATE: 18-APR-:
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                                                                                  FEATURE:
                                                                                              MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                               FILING DATE: 01-OCT-1996
CLASSIFICATION:
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                                                               NAME/KEY: Peptide
                                                                                                                   TOPOLOGY:
                                                                                                                                 STRANDEDNESS:
                                                                                                                                                 TYPE: amino acid
                                                                                                                                                                                                                                  TELEPHONE:
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Nakamura, Toru
Chapman, Karen B.
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Harley, Calvin
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                                                                                                                   linear
                                                                                                                                                                                                                                   (415) 576-0200
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               /note= "motif D peptide from human
telomerase core protein 1 (TCP1)"
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Pred. No. 7.9
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Query Match Best Local

Similarity

41.0%; 77.8%;

Score 34; I Pred. No. 9

DB 2;

Length 15

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, V
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/974,549A
FILING DATE: 19-NOV-1997
CLASSIFICATION: 536
                                  ATTORNEY/AGENT INFORMATION:
NAME: Apple, Randolph Te
                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/US97/17618
FILING DATE: 01-0CT-1997
                                                                                                                                                                                                                                                                                                            FILING DATE: 09-MAY-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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FILING DATE: 18-APR-1997
PRIOR APPLICATION DATA:
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TITLE OF I
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CORRESPONDENCE ADDRESS:
                                                                                                    PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 08/846,017 FILING DATE: 25-APR-1997
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                   APPLICATION NUMBER: FILING DATE: 01-007
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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VENTION: Human Telomerase Catalytic Subunit
EQUENCES: 727
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Chapman, Karen B.
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                                                                   UMBER: WO PCT/US97/17885
01-OCT-1997
                                                                                                                                                                                                                        UMBER: US 08/912,951
14-AUG-1997
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14-AUG-1997
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                                                                                                                                                                                                                                                                                                                               UMBER: US 08/854,050
09-MAY-1997
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015389-002610US
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Best Local S
Matches 7
                                                                                                                                                                               APPLICATION NUMBER: US/08/854,050
FILING DATE: 09-MAY-1997
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (415) 576-03
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
COMPUTER: IBM PC com
                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 01-0CT-1996
                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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TELEPHONE: (415) 576-0200
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                                                                           CLASSIFICATION:
                                                                                                                                                     APPLICATION NUMBER: US 08/846,017 FILING DATE: 25-APR-1997
                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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California
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INVENTION: No. 6261836el Telomerase
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Two Embarcadero Center, 8th Floor
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Nakamura, Toru
Nakamura, Karen B.
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Harley, Calvin
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INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                             Floppy disk
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77.8%;
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                                              US 08/724,643
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Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                Version #1.30
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9.3;
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; LOCATION: 1.15-"
OTHER INFORMATION: /note= "motif D peptide from human OTHER INFORMATION: telomerase core protein 1 (TCP1)"
US-08-854-050-171
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US-09-430-323-171
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Best Local S
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TELEPHONE: (415) 576-0200
TELEPAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 171:
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LENGTH: 15 amino acids
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                                                                                     PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/854,050
FILING DATE: 09-MAY-1997
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
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REGISTRATION NUMBER: 36,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
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                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/430,323
FILING DATE: 29-Oct-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Andrews, William H.
TITLE OF INVENTION: No. 6309867el Telomerase
NUMBER OF SEQUENCES: 225
                                ATTORNEY/AGENT INFORMATION:
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Similarity 77.8%;
7; Conservation
NAME: Apple, REGISTRATION
                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                    SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
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                                                     APPLICATION NUMBER: US 08/724,643 FILING DATE: 01-OCT-1996
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Harley, Calvin
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Chapman, Karen B.
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Randolph T.
NUMBER: 36,429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "motif D peptide from human
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US-09-402-181B-291
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Cech,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 LVMGVPFYG 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 015389-002930US
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; telomerase core protein 1 (TCP1)"; SEQUENCE DESCRIPTION: SEQ ID NO: 171: US-09-430-323-171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 171: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC COMPATIBLE

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Morin, Gregg B.
Harley, Calvin B.
Andrews, William H.
TITLE OF INVENTION: Human Telomerase Catalytic Subunit
NUMBER OF SEQUENCES: 633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 77.177; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 15 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/402,181B FILING DATE: 29-Sep-1997 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Townsend and Townsend and Crew LLP STREET: Two Embarcadero Center; Eighth Floor CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: California
                                      APPLICATION NUMBER: US 08/911,312 FILING DATE: 14-AUG-1997
                                                                                 APPLICATION NUMBER: US 08/854,050 FILING DATE: 09-MAY-1997
                                                                                                                        FILING DATE: 25-APR-1997
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
                                                                                                                                                                                    APPLICATION NUMBER: US 08/844,419 FILING DATE: 18-APR-1997 APPLICATION NUMBER: US 08/846,017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: <Unknown>
APPLICATION NUMBER: US 08/912,951 FILING DATE: 14-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/09402181B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lingner, Joachim
Nakamura, Toru
Chapman, Karen B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide
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77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Thomas R
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Pred. No. 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      рв
9.3
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RESULT 16
US-09-721-456-291
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GENERAL INFORMATION:
APPLICANT: Cech.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
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SEQUENCE CHARACTERISTICS:
                                           COMPUTER: IBM PC COMPARIBLE
COMPUTER: IBM PC COMPARIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/721,456
FILING DATE: 22-No. 6617110-2000
CLASSIFICATION: cUnknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/974,549A
FILING DATE: 19-NOV-1997
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
FILING DATE: 01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
see 7; Conserv
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REFERENCE/DOCKET NUMBER: 015389-002620US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nakamura, Toru
Chapman, Karen B.
Worin, Gregg B.
Harley, Calvin B.
Andarews, William H.
Andarews, William H.
NUMBER OF INVENTION: Human Telomerase Catalytic Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         telomerase core protein 1 ('SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: WO PCT/US97/17885 FILING DATE: 01-OCT-1997 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 LVMGVPFYG 11
                                                                                                                                                                                                                                                                                                                                                            STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: Peptide LOCATION: 1..15
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                  CITY: San Francisco
               APPLICATION NUMBER: US 08/844,419 FILING DATE: 18-APR-1997
                                                                                                                                                                                                                                                                                                                        ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/915,503 FILING DATE: 14-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Townsend and Townsend and Crew LLP STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH: 15 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/09721456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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:ein 1 (TCP1)"
} ID NO: 291:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 34; DB Pred: No. 9.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
08/846,017
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4 LVRGVPEYG

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Query Match
Best Local Similarity
7; Conserva
                                                                                                                  US-09-721-456-291
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                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/912,951
FILING DATE: 14-AUG-1997
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
APPLICATION NUMBER: WO PCT/US97/17618
FILING DATE: 01-OCT-1997
APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-OCT-1997
ATTORNEY/AGENT INFORMATION:
NAME: Apple, Randolph Ted
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002610US
TELECOMMUNICATION INFORMATION:
                                                                                                                              OTHER INFORMATION: /note= "motif D peptide from human telomerase core protein 1 (TCP1)"
SEQUENCE DESCRIPTION: SEQ ID NO: 291:
                                                                                                                                                                                                                                                     MOLECULE TYPE: peptide
                                                                                                                                                                                                                                     FEATURE:
3 LVMGVPFYG 11
                                                                                                                                                                          LOCATION: 1..15
OTHER INFORMATION:
                                                                                                                                                                                              LOCATION:
                                                                                                                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                                                          STRANDEDNESS: <Unknown>
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (415)
                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/851,843 FILING DATE: 06-MAY-1997 APPLICATION NUMBER: US 08/854,050
                                                                                                                                                                                                                                                                                                                                     LENGTH: 15 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/911,312 FILING DATE: 14-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 09-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 25-APR-1997
                                      Conservative
                                                                                                                                                                                                            Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                     (415) 576-0200
                                                       41.0%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                               576-0300
                                      0,
                                    Score 34; DB 2;
Pred. No. 9.3;
0; Mismatches
                                                                       Length 15
                                      Indels
                                    0
                                      Gaps
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RESULT 17

US-09-766-253-171

US-09-766-253-171

Sequence 171, Application US/09766253

Patent No. 680880

Patent No. 680880

Lingner, Joachim
Nakamura, Toru
Chapman, Karen B
Morin, Gregg B
Harley, Calvin
Andrews, William H.

TITLE OF INVENTION: No. 6808880el Telomerase
NUMBER OF SEQUENCES: 171

CORRESPONDENCE ADDRESS:
ADDRESS: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, 8th Floor
CITY: San Francisco
STATE: California
COUNTRY: United States of America
ZIP; 94111

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30

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telomerase core protein 1 (TCP1);
SEQUENCE DESCRIPTION: SEQ ID NO: 171:
US-09-766-253-171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-054-295-171
; Sequence 171, Applicati
; Patent No. 6921664
; GENERAL INFORMATION:
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEPAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 171:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC:CDOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/054,295
FILING DATE: 18-Jan-2002
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/846,017
FILING DATE: 1997-04-25
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                ZIP: 94111
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                             Andrews, William H. TITLE OF INVENTION: No. 6921664el Telomerase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Cech, Thomas R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 7; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 LVMGVPFYG 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: Peptide
LOCATION: 1.15
OTHER INFORMATION: /note= "motif D peptide from human
OTHER INFORMATION: (TCP1)"
                                                                                                                                                                                                                                                                                         STREET: Two Embarcadero Center, CITY: San Francisco STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/766,253
FILING DATE: 19-Jan-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LVRGVPEYG 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Apple, Randolph T.
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002920US
                APPLICATION NUMBER: 08/854,050 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                      COUNTRY: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Townsend and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
APPLICATION NUMBER: US 08/846,017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 15 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/10054295
                                                                                                                                                                                                                                                                                                                                                                                               OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Harley, Calvin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ingner, Joachim
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77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Karen B.
                                                                                                                                                                                                                                                                                                                                                                                             225
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Pred. No. 9.3;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                  Townsend and Crew LLP Center, 8th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 15;
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APPLICANT: MORIN, GREGG B.

APPLICANT: HARLEY, CALVIN
APPLICANT: HARLEY, CALVIN
APPLICANT: ANDREWS, WILLIAM H.

TITLE OF INVENTION: GENE FOR HUMAN TELOMERASE REVERSE TRANSCRIPTASE AND TITLE OF INVENTION: TELOMERASE VARIANTS
FILE REFERENCE: 018/062
CURRENT APPLICATION NUMBER: US/09/438,486A
CURRENT FILING DATE: 1999-11-12
PRIOR APPLICATION NUMBER: 08/851,843
PRIOR FILING DATE: 1997-06
PRIOR FILING DATE: 1997-04-25
PRIOR APPLICATION NUMBER: 08/846,017
PRIOR APPLICATION NUMBER: 08/846,017
PRIOR APPLICATION NUMBER: 08/846,419
PRIOR APPLICATION NUMBER: 08/844,419
PRIOR FILING DATE: 1997-04-18
PRIOR APPLICATION NUMBER: 08/844,419
PRIOR FILING DATE: 1996-10-01
NUMBER OF SEQ ID NOS: 223
SOFTWARE: Patentin Ver. 3.2

SOFTWARE: Patentin Ver. 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; telomerase core protein 1 (TCP1)"; SEQUENCE DESCRIPTION: SEQ ID NO: 171:
US-10-054-295-171
; OTHER INFORMATION: Description of Artificial Sequence: Recombinant; OTHER INFORMATION: amino acid sequence US-09-438-486A-171
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: CECH THOMAS R.
APPLICANT: LINGNER, JOACHIM
APPLICANT: NAKAMURA, TORU
APPLICANT: CHAPMAN, KAREN B.
                                                                   LENGTH: 15
TYPE: PRT
ORGANIEM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (415) 576-0300 INFORMATION FOR SEQ ID NO: 171: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-CCT-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Apple, Randolph T.
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002930US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY:
LOCATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: <Unknown>
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/09438486A
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77.8%;
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Pred. No. 9.3;
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Query Match

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Score 34;

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Length 15;

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                                                                                                                                        US-09-657-757-38
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Matches
                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US/09/171,705
PRIOR FILING DATE: 1998-10-23
NUMBER OF SEQ ID NOS: 78
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 38
                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 38, Application US/09657757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 38
LENGTH: 16
                                                                     Matches
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Sequence 38, App-
No. 618420
                                                                                     Best Local
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: 0/96198 US
CURRENT APPLICATION NUMBER: US/09/657,757
CURRENT FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: BOOTS, ANNA M.H.
APPLICANT: VERHEIJDEN, GILBERTUS F.M.
TITLE OF INVENTION: NOVEL PEPTIDES SUITABLE FOR USE IN ANTIGEN SPECIFIC TITLE OF INVENTION: IMMUNOSUPPRESSIVE THERAPY
FILE REPERENCE: 0/96198 US
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: VERHEIJDEN, GILBERTUS F.M.
TITLE OF INVENTION: NOVEL PEPTIDES SUITABLE FOR USE IN ANTIGEN SPECIFIC
TITLE OF INVENTION: IMMUNOSUPPRESSIVE THERAPY
                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: BOOTS, ANNA M.H. APPLICANT: VERHEIJDEN, GIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/171,705
CURRENT FILING DATE: 1999-02-09
NUMBER OF SEQ ID NOS: 78
                                                                                                                                                   FEATURE:
OTHER INFORMATION: Description
OTHER INFORMATION: SEQUENCE OF
                                                                                                                                                                                                ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
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les 6; Conser
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                                  2 KLVMGVP 8
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                                                                                       Similarity
KLVMGIP 16
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                                                                   Conservative
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                                                                                   41.0%;
85.7%;
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85.7%;
                                                                 Score 34; DB 2
Pred. No. 10;
1; Mismatches
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Pred. No. 10;
1; Mismatches
                                                                                                                                                       of Artificial Sequence: DERIVED FROM HUMAN CARTILAGE (HC) -39 PROTEIN
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                                                                   0
                                                                                                  Length 16;
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                                                                   Indels
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US-10-038-972A-4
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US-08-444-818-420
                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: J. BARTLECT
TITLE OF INVENTION: AAV VECTORS AND METHODS
FILE REFERENCE: 28335/36996US
CURRENT APPLICATION NUMBER: US/10/038,972A
CURRENT FILING DATE: 2002-01-04
                                            SOFTWARE: PatentIn version 3.1
SEQ ID NO 4
LENGTH: 11
                                                                                                                                                                                                                                                     Sequence 4, Applica
Patent No. 6962815
                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
                                                                                                  PRIOR APPLICATION NUMBER: US 60/260,124
PRIOR FILING DATE: 2001-01-05
NUMBER OF SEQ ID NOS: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/
FILING DATE: 14-MAR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
ORGANISM: Artificial Sequence FEATURE:
                                  TYPE: PRT
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COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Chien, David Y.
APPLICANT: Rutter, William J.
TITLE OF INVENTION: NAMBY Dia
NUMBER OF SEQUENCES: 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Harbin, Alisa A.
REGISTRATION NUMBER: 33,895
REFERENCE/DOCKET NUMBER: 011
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/444,818
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 4560 Hort
CITY: Emeryville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptide
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Pred. No. 4.6e+05
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; Patent No. 5460961
; Patent No. 5460961
; APPLICANT: DEBY, CAROL; PINCEMAIL, JOEL; BOLLEN, ALEX
; TITLE OF INVENTION: HUMAN MYELOPEROXIDASE AND ITS
; THERAPEUTIC APPLICATION
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/641,678
; APPLICATION NUMBER: US/07/641,678
; PILING DATE: 16-JAN-1991
; PRIOR APPLICATION DATA:
; APPLICATION UMBER: 460,931
; PRIOR APPLICATION DATA:
; APPLICATION UMBER: 460,931
; PILING DATE: 14-FEB-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 25
US-08-968-542C-22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5460961-8
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LENGTH: 12
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Matches
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Best Local Similarity 83.3%;
Matches 5; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Myers, et al.
TITLE OF INVENTION: dull1 Codes For A No. 5981728el Starch
TITLE OF INVENTION: Synthase
NUMBER OF SEQUENCES: 35
                                                                                                                                         COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word 6.0.1 for Macintosh
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/968,542C
FILING DATE: No. 5981728ember 12, 1997
CLASSIFICATION BOO
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
             ATTORNEY/AGENT INFORMATION:
NAME: Benjamin Aaron Adler, Ph.D.,
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D6036
TELECOMMUNICATION INFORMATION:
TELEPHONE: (713) 777-2321
                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 floppy disk
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                                                                                                                             FILING DATE:
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STREET: 8011 Candle Lane
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(713) 777-6908
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; DESCRIPTION: amino ac:
; HYPOTHETICAL: no
; ANTI-SENSE; no
; FRAGMENT TYPE: internal
US-08-968-542C-22
Search completed: January 26, 2006, 08:07:02 Job time : 17.1408 secs
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Local Similarity 62.5%;
hes 5; Conservative
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128.563 Million cell updates/sec
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83
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1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

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           DKLVMGVPFYGRAXSIE
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Copyright (c) 1993 - 2006 Compugen
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US-09-791-379-311
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US-10-328-916-47

US-10-958-216-843

US-09-864-761-42568

US-10-138-972A-4

US-10-964-761-41147

US-10-964-2672-2

US-10-117-846-3

US-10-117-846-3

US-10-117-280A-7

US-09-965-967-26

US-10-12-846-33

US-10-427-3855-3

US-10-427-3855-3

US-10-264-303-12

US-10-264-303-12

US-10-264-303-15

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US-10-264-303-165-1483

US-10-264-303-165-1483

US-10-10-116-118-34

US-10-062-109A-762

US-10-062-109A-762

US-10-10-149-138-4225

US-10-120-835-46

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843, App
841, App
411, App
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613, App
6140, App
6150, App
6170, ```

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ALIGNMENTS

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; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-791-378-324
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 RESULT 2
US-09-791-378-324
 US-10-218-743-10
 US-10-218-743-10
 CURRENT APPLICATION NUMBER: US/10/218,743
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/292,225
PRIOR FILING DATE: 1999-04-15
PRIOR APPLICATION NUMBER: 60/098,909
PRIOR FILING DATE: 1998-09-02
PRIOR FILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/085,295
PRIOR APPLICATION NUMBER: 60/085,295
PRIOR APPLICATION NUMBER: 60/085,295
PRIOR FILING DATE: 1998-05-13
 GENERAL INFORMATION:
 SOFTWARE: PatentIn version 3.0 SEQ ID NO 324
 Sequence 324, Application US/09791378 Patent No. US20020142303A1
 Query Match
Best Local Similarity
 SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 10
 Best Local Similarity 70.0 Matches 7; Conservative
 Query Match
 Matches
 GENERAL INFORMATION:
 APPLICANT: Parekh, Rajesh
TITLE OF INVENTION: PROTEINS, GENES AND THEIR USE FOR DIAGNOSIS AND TREATMENT OF
TITLE OF INVENTION: SCHIZOPHRENIA
FILE REFERENCE: 9195-061-999
CURRENT APPLICATION NUMBER: US/09/791,378
CURRENT FILING DATE: 2001-02-23
 PRIOR APPLICATION NUMBER: 09/750,395
PRIOR FILING DATE: 2000-12-28
NUMBER OF SEQ ID NOS: 677
 PRIOR APPLICATION NUMBER: 09/062,013 PRIOR FILING DATE: 1998-04-17
 FILE REFERENCE: AL-2-C3
 TITLE OF INVENTION: NOVEL DERMATOPHAGOIDES NUCLEIC ACID MOLECULES, PROTEINS TITLE OF INVENTION: AND USES THEREOF
 APPLICANT: Hunter, Shirle:
APPLICANT: Weber, Eric R.
 APPLICANT: McCall, Catherine A. APPLICANT: Hunter, Shirley Wu
 LENGTH: 17
TYPE: PRT
ORGANISM: Dermatophagoides farinae
 FEATURE: OTHER INFORMATION: At location 14,
 APPLICATION NUMBER: 60/098,565 FILING DATE: 1998-04-17
3 LVMGVPFYGR 12
 DKLVMGVPFYGRAXSIE 17
 DKLVMGVPFYGRAXSIE 17
 Application US/10218743
 97.6%;
ilarity 100.0%;
Conservative (
 US20030096779A1
 49.4%;
70.0%;
 0
 Score 81;
Pred. No.
 Score 41;
Pred. No.
 Mismatches
 Xaa =
 DB 3;
2.1;
 DB 4; L
2.8e-07;
 any amino acid
 0; Indels
 Length 10;
 Length 17;
 0
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 Gaps
 Gaps
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B
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 US-09-791-393-111
 ; ORGANISM: homo sapien US-09-826-290-321
 APPLICANT: WILLIAMS, Stephen A.
APPLICANT: WILLIAMS, Stephen A.
TITLE OF INVENTION: Nucleic Acid Molecules, Poly,
TITLE OF INVENTION: Uses Therefor, Including Di,
TITLE OF INVENTION: Alzheimer's Disease
FILE REFERENCE: 2572-1-001 N2
CURRENT APPLICATION NUMBER: US/09/826,290
CURRENT APPLICATION NUMBER: US 60/194,504
PRIOR APPLICATION NUMBER: US 60/194,504
PRIOR APPLICATION NUMBER: US 60/253,647
PRIOR FILING DATE: 2000-01-28
PRIOR FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 492
 US-09-826-290-321
 Sequence 111, Applic Publication No. US20 GENERAL INFORMATION:
EARLIER FILING DATE: 2000-12-12
NUMBER OF SEQ ID NOS: 308
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 111
LENGTH: 10
 SEQ ID NO 321
LENGTH: 10
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 Sequence 321, Application US/09826290 Patent No. US20020164668A1
 Sequence
 Best Local
 CURRENT APPLICATION NUMBER: US/09/791,393
CURRENT FILING DATE: 2002-01-02
EARLIER APPLICATION NUMBER: GB 0004412.3
EARLIER FILING DATE: 2000-02-24
EARLIER APPLICATION NUMBER: GB 0030050.9
EARLIER FILING DATE: 2000-12-08
EARLIER APPLICATION NUMBER: US 60/254,830
 TITLE OF INVENTION: Proteins, Genes and Their Use for TITLE OF INVENTION: Diagnosis and Treatment of Bipolar Affective Disorder (BAD) TITLE OF INVENTION: and Unipolar Depression FILE REFERENCE: 2543-1-001 N1
 APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
APPLICANT: Parekh, Rajesh Bhikhu
APPLICANT: Rohlff, Christian
 APPLICANT:
 APPLICANT:
 SOFTWARE:
 APPLICANT:
 APPLICANT:
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 APPLICANT:
 APPLICANT:
 TYPE: PRT
 INFORMATION:
 3 LVMGVPFYGR 12
 Similarity 70.0
 FastSEQ for Windows Version 4.0
 LVMGIPTFGR 10
 Herath, Herath Mudiyanselage Athula Chandrasiri
 Parekh,
 White, Frost
 Townsend, Robert Reid
 Kimmel, Lida H.
 Sunderland,
 Friedman,
 Application US/09791393
 US20030032200A1
 L.Kathryn
 Thomas R. and, P. Trey
 Christian
B. Michael
 Rajesh Bhikhu
David M.
 49.4%;
 David L.
 Score 41; DB Pred. No. 2.1; 2; Mismatches
 DB 3;
 Polypeptides and
 Diagnosis and Treatment of
 <u>.</u>
 Length 10;
 Indels
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 Gaps
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Sequence 324, Application US/09791377

Publication No. US20040110938A1

GENERAL INFORMATION:
APPLICANT: Parekh, Rajesh
TITLE OF INVENTION: PROTEINS, GENES AND THEIR USE FOR DIAGNOSIS AND TREATMENT OF
TITLE OF INVENTION: SCHIZOPHRENIA
FILE REFERENCE: 9195-060-999
CURRENT APPLICATION NUMBER: US/09/791,377
CURRENT APPLICATION NUMBER: US/09/791,377
CURRENT FILING DATE: 2001-02-23
PRIOR APPLICATION NUMBER: 09/750,395
PRIOR FILING DATE: 2000-12-28
NUMBER OF SEQ ID NOS: 677
SOFTWARE: Patentin version 3.0
SEQ ID NO 324
LENGTH: 10
TYPE: PRT
ORGANISM: Homo sapiens
US-09-791-377-324
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 RESULT 6
US-09-791-377-324
 ; TYPE: PRT
; ORGANISM: homo sapien
US-09-791-393-111
 ; TYPE: PRT
; ORGANISM: homo sapien
US-09-791-389-111
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 US-09-791-389-111
 NUMBER OF SEQ ID NOS: 308
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 111
 Sequence 111, Applic Publication No. US20 GENERAL INFORMATION:
 Matches
 Query Match 49.4%;
Best Local Similarity 70.0%;
 Query Match 49.4%;
Best Local Similarity 70.0%;
Matches 7; Conservative 2
 APPLICANT: Terrett, Jonathan Alexander
APPLICANT: Tyson, Kerry Louise
TITLE OF INVENTION: Proteins, Genes and Their Use for
TITLE OF INVENTION: Diagnosis and Treatment of Bipolar Affective Disorder (BAD)
TITLE OF INVENTION: and Unipolar Depression
FILE REFERENCE: 2543-1-01 N2
CURRENT APPLICATION NUMBER: US/09/791,389
CURRENT FILING DATE: 2001-02-23
PRIOR APPLICATION NUMBER: GB 0004412.3
PRIOR APPLICATION NUMBER: GB 030050.9
PRIOR FILING DATE: 2000-02-24
PRIOR FILING DATE: 2000-012-08
PRIOR APPLICATION NUMBER: US 60/254,830
PRIOR PILING DATE: 2000-12-12
 APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
APPLICANT: Parekh, Rajesh Bhikhu
APPLICANT: Rohlff, Christian
 LENGTH: 10
 1 LVMGIPTFGR 10
 3 LVMGVPFYGR 12
 3 LVMGVPFYGR 12
 1 LVMGIPTFGR 10
 Application US/09791389
o. US20030032773A1
 Conservative
 Score 41; DB 3;
Pred. No. 2.1;
2; Mismatches
 Score 41; DB
Pred. No. 2.1;
 Mismatches
 DB 3; Length 10
 1; Indels
 1; Indels
 Length 10
 0;
 0
 Gaps
 Gaps
 0
 0
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APPLICANT: WILLIAMS, STEPHEN A.
TITLE OF INVENTION: NUCLEIC ACID MOLECULES, POLY
TITLE OF INVENTION: INCLUDING DIAGNOSIS AND TRE
FILE REFERENCE: POA-002.01
CURRENT APPLICATION NUMBER: US/10/264,309
CURRENT FILING DATE: 2002-10-03
PRIOR APPLICATION NUMBER: 60/326,708
PRIOR FILING DATE: 2001-10-03
NUMBER: OF SEQ ID NOS: 491
SOFTWARE: Patentin Version 2.1
SEQ ID NO 277
LENGTH: 10
 8
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 망
 US-10-264-309-277
 RESULT 8
 US-10-264-309-277
 US-10-264-309-277
 GENERAL INFORMATION:
 Sequence 277, A Publication No.
 Query Match 49.4%;
Best Local Similarity 70.0%;
Matches 7; Conservative
 Best Local
Matches
 APPLICANT:
APPLICANT:
APPLICANT:
 Query Match
 APPLICANT: DURHAM, APPLICANT: FRIEDM
 APPLICANT:
APPLICANT:
APPLICANT:
 APPLICANT:
 APPLICANT:
 APPLICANT:
 APPLICANT
 TYPE: PRT
ORGANISM: Homo sapiens
 APPLICANT:
 APPLICANT:
 APPLICANT:
 1 LVMGIPTFGR 10
 3 LVMGVPFYGR 12
 Similarity 70.0
 KIMMEL, LIDA H.
PAREKH, RAJESH B.
POTTER, DAVID M.
ROHLFF, CHRISTIAN
SILBER, B. MICHAEL
SNYDER, PETER J.
SOARES, HOLLY D.
STIGER, THOMAS R.
SUNDERLAND, P. TREY
 ||||:|:||
LVMGIPTFGR 10
 PAREKH, RAJESH B.
POTTER, DAVID M.
ROHLFF, CHRISTIAN
SILBER, B. MICHAEL
TOWNSEND, ROBERT R. WHITE, W. FROST
 HERATH, HERATH
 FRIEDMAN, DAVID L.
 TOWNSEND, ROBERT R. WHITE, W. FROST
 FRIEDMAN, DAVID L.
 SUNDERLAND,
 SOARES, HOLLY D.
 KIMMEL, LIDA H.
 HERATH, HERATH
 STIGER, THOMAS R.
SUNDERLAND, P. TREY
 Application US/10264309
 Application US/10264309
 US20050163789A9
 US20040022794A1
 L. KATHRYN
 49.48;
 Score 41; DB 3
Pred. No. 2.1;
2; Mismatches
 Score 41; DB .
Pred. No. 2.1;
2; Mismatches
 DB 4;
 DB 3; Length 10;
 POLYPEPTIDES AND USES THEREFOR, ID TREATMENT OF ALZHEIMER'S DISEASE
 Length 10;
 1; Indels
 Indels
 ٥,
 0
 Gaps
 Gaps
 0
 0,
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```
APPLICANT: STIGER, THOMAS R.

APPLICANT: SUNDERLAND, P. TREY
APPLICANT: TOWNGEND, ROBERT R.

APPLICANT: TOWNGEND, ROBERT R.

APPLICANT: WHITE, W. FROST
APPLICANT: WILLIAMS, STEPHEN A.

APPLICANT: WILLIAMS, STEPHEN A.

TITLE OF INVENTION: INCLUDING DIAGNOSIS AND TREATMENT OF ALZHEIMER'S DISEASE
FILE REFERENCE: POA-002.01

CURRENT FILING DATE: 2002-10-03

CURRENT FILING DATE: 2002-10-03

PRIOR APPLICATION NUMBER: 60/326,708

PRIOR PILING DATE: 2001-10-03

NUMBER OF SEQ ID NOS: 491

SOPTWARE: Patentin Version 2.1

SEQ ID NO 278
RESULT 10
US-10-264-309-278
; Sequence 278, Application US/10264309
; Publication No. US20050163789A9
; GENERAL INFORMATION:
 S
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 ; TYPE: PRT ; ORGANISM: Homo sapiens US-10-264-309-277
 В
 ; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-264-309-278
 RESULT 9
US-10-264-309-278
 TITLE OF INVENTION: NUCLEIC ACID MOLECULES, POLYPEPTIDES AND USES THEREFOR, TITLE OF INVENTION: INCLIDING DIAGNOSIS AND TREATMENT OF ALZHEIMER'S DISEASE FILE REFERENCE: POA-002.01
CURRENT APPLICATION NUMBER: US/10/264,309
CURRENT FILING DATE: 2002-10-03
PRIOR APPLICATION NUMBER: 60/326,708
PRIOR FILING DATE: 2001-10-03
PRIOR FILING DATE: 2001-10-03
SOFTWARE: Patentin Version 2.1
SEQ ID NO 277
LENGTH: 10
 Query Match 47.0%;
Best Local Similarity 70.0%;
Matches 7; Conservative
 Sequence 278, A Publication No.
 APPLICANT: DURHAM,
APPLICANT: FRIEDMI
APPLICANT: HERATH,
APPLICANT: KIMMEL,
 GENERAL INFORMATION:
 Best Local Similarity 70.0%; Matches 7; Conservative
 APPLICANT:
APPLICANT:
APPLICANT:
 APPLICANT:
 3 LVMGVPFYGR 12
 3 LVMGVPFYGR 12
 LVMGLPTFGR 10
 PAREKH,
 HERATH, HERATH
 FRIEDMAN, DAVID L.
 Application US/10264309 o. US20040022794A1
 L. KATHRYN
 LIDA H.
RAJESH B.
DAVID M.
CHRISTIAN
 HOLLY D.
 B. MICHAEL
 2; Mismatches
 Score 41; DB!
Pred. No. 2.1;
 Score 39; DB 4;
Pred. No. 4.8;
 Mismatches
 ت
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 1; Indels
 Length 10,
 Length 10;
 0,
 0
 Gaps
 Gaps
 0,
 0
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```
APPLICANT: KIMMEL, LIDA H.
APPLICANT: KIMMEL, LIDA H.
APPLICANT: PAREKH, RAJESH B.
APPLICANT: PAREKH, RAJESH B.
APPLICANT: POTTER, DAVID M.
APPLICANT: ROHLFF, CHRISTIAN
APPLICANT: SILBER, B. MICHAEL
APPLICANT: SUNDER, PETER J.
APPLICANT: SUNDERLAND, P. TREY
APPLICANT: SUNDERLAND, P. TREY
APPLICANT: SUNDERLAND, ROBERT R.
APPLICANT: WHITE, W. FROST
APPLICANT: WHITE, W. FROST
APPLICANT: WHITE, W. FROST
APPLICANT: WILLIAMS, STEPHEN A.
TITLE OF INVENTION: INCLUDING DIAGNOSIS AND TREATMENT OF ALZHEIMER'S DISEASE
FILE REFERENCE: POA-002.01
CURRENT APPLICATION NUMBER: US/10/264,309
CURRENT APPLICATION NUMBER: 60/326,708
PRIOR APPLICATION NUMBER: 60/326,708
PRIOR FILING DATE: 2001-10-03
NUMBER OF SEQ ID NOS: 491
SOFTWARE: DATESTATE VESSES OF THE SECRET OF T
 RESULT 11
US-09-017-743C-3
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 ; ORGANISM: Homo sapiens
US-10-264-309-278
 SOFTWARE: PatentIn Version 2.1
SEQ ID NO 278
LENGTH: 10
 Sequence 3, Application US/09017743C Patent No. US20020177694A1 GENERAL INFORMATION:
 Matches
 Query Match
Best Local :
 APPLICANT:
 TYPE: PRT
 COUNTRY: USA
ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
COMPUTER: FastSEQ for Windows Version 2.0
CURRENT APPLICATION NUMBER: US/09/017,743C
FILING DATE: 03-Feb-1998
CLASSIFICATION - CURROWN>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/590,298
FILNG DATE: 23-JAN-1996
ATTORNEY/AGENT INFORMATION:
NAME: PATENT, ANDELTE S.
REGISTRATION NUMBER: 42,058
REGISTRATION NUMBER: 42,058
REGISTRATION NUMBER: 42,058
 CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
 NUMBER OF SEQUENCES:
 TITLE OF INVENTION: HLA Binding Peptides and Their
 APPLICANT: Sette, Alessandro
 3 LVMGVPFYGR 12
 Similarity 7; Conserv
 LVMGLPTFGR 10
 DURHAM, L. KATHRYN
 STATE: CA
 CITY: San Francisco
REFERENCE/DOCKET NUMBER: 018623-008050US
 Conservative
 Southwood,
 47.0%;
70.0%;
 John
 146
 Scott
 Score 39; DB 5;
Pred. No. 4.8;
 Mismatches
 Length 10;
 0;
 Gaps
 0
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CURRENT APPLICATION NUMBER: US/10/371,525
CURRENT FILING DATE: 2003-02-21
PRIOR APPLICATION NUMBER: US 09/311,784
PRIOR FILING DATE: 1999-05-13
PRIOR APPLICATION NUMBER: US 60/085,751
PRIOR FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 463
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 273
 RESULT 13
US-10-371-069-273
| Sequence 273, Application US/10371069
| Publication No. US20030216342A1
 밁
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 Query Match
Best Local Similarity
Tatches 5; Conserve
 RESULT 12
US-10-371-525-273
 밁
 ; FEATURE:
; OTHER INFORMATION: HCV 1378 (peptide 29.0035)
US-10-371-525-273
 US-09-017-743C-3
 GENERAL INFORMATION:
 GENERAL INFORMATION:
 Sequence 273, A Publication No.
 Matches
 Query Match
Best Local (
APPLICANT: EPIMMUNE Inc.
APPLICANT: Fikes, John D.
APPLICANT: Hermanson, Gary G.
APPLICANT: Sette, Alessandro
APPLICANT: Ishioka, Glenn Y.
 APPLICANT:
 TITLE OF INVENTION: Expression Vectors for Stimulating an TITLE OF INVENTION: Immune Response and Methods of Using the FILE REFERENCE: 39963-20022.01
 APPLICANT: Fikes, John D.
APPLICANT: Hermanson, Gary G.
APPLICANT: Sette, Alessandro
APPLICANT: Ishioka, Glenn Y.
 APPLICANT:
 TYPE: PRT
ORGANISM: Artificial Sequence
 TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
 TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO:
 TELECOMMUNICATION INFORMATION:
 7 VPFYGRA 13
 1 IPFYGKA 7
 7 VPFYGRA 13
 Similarity 5; Conserv
 TYPE: amino acid
STRANDEDNESS: single
 TELEFAX: 415-576-0300
 TELEPHONE: 415-576-0200
 Epimmune Inc.
 Livingston, Brian
 ENGTH: 8 amino acids
 Application US/10371525
o. US20030203869A1
 Conservative
 Conservative
 42.2%;
71.4%;
 42.2%;
71.4%;
 Score 35; DB 3; Le
Pred. No. 1.7e+06;
Pred. No. 1.7e+06;
 Score 35; |
Pred. No. 1
 Mismatches
 DB 4;
 7e+06;
 0
 Length 8;
 Length 8;
 Indels
 Indels
 Same
 0
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 Gaps
 Gaps
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 Query Match
Best Local Similarity
Marches 5; Conservat
 US-10-371-645-273
 ; OTHER INFORMATION: HCV 1378 (peptide 29.0035) US-10-371-069-273
 US-10-371-645-273
 SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 273
 Sequence 273, A Publication No.
 Matches
 Query Match
 SEQ ID NO 273
 Best Local
 PRIOR APPLICATION NUMBER: US 09/078, 904
PRIOR FILING DATE: 1998-05-13
PRIOR APPLICATION NUMBER: US 60/085, 751
PRIOR FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 463
 APPLICANT:
APPLICANT:
APPLICANT:
 APPLICANT: Chesnit, Robert W.
APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Expression Vectors for Stimulating an TITLE OF INVENTION: Immune Response and Methods of Using FILE REFERENCE: 39963-20022.11
CURRENT APPLICATION NUMBER: US/10/371,645
CURRENT FILING DATE: 2003-06-20
 APPLICANT: Chesnut, Robert W.
APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Expression Vectors for Stimulating an TITLE OF INVENTION: Immune Response and Methods of Using FILE REFERENCE: 39963-2022.10
CURRENT PEPLICATION NUMBER: US/10/371,069
CURRENT FILING DATE: 2003-02-21
 PRIOR APPLICATION NUMBER: US 09/078,904
PRIOR FILLWG DATE: 1998-05-13
PRIOR APPLICATION NUMBER: US 60/085,751
PRIOR FILLWG DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 463
SOFTWARE: FastSEQ for Windows Version 3.0
 APPLICANT:
 APPLICANT: EPIMMUNE Inc. APPLICANT: Fikes, John
 LENGTH: 8
TYPE: PRT
ORGANISM: Artificial Sequence
 APPLICANT:
 TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
 OTHER INFORMATION: HCV 1378 (peptide 29.0035)
 ENGTH:
 INFORMATION
 7 VPFYGRA 13
 1 IPFYGKA 7
 7 VPFYGRA 13
 Similarity 71.4
5; Conservative
:||||:|
 Hermanson, Gary G
 Ishioka, Glenn
 Livingston,
 Sette, Alessandro
 Livingston, Brian
 Application US/10371645
 Conservative
 US20030216343A1
 42.2%;
 42.2%;
71.4%;
 2; Mismatches
 Score 35; DB 4;
Pred. No. 1.7e+06;
 Score 35; DB 4;
Pred. No. 1.7e+06
 Length 8;
 Length 8;
 Indels
 the
 the
 0
 0;
 Gaps
 Gaps
 0
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US-10-371-260-273

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 5
 ; OTHER INFORMATION: HCV 1378 (peptide 29.0035) US-10-371-260-273
 ; ORGANISM: hepatitis C virus US-10-651-165-146
 US-10-651-165-146
 CURRENT APPLICATION NUMBER: US/10/651,165
CURRENT FILING DATE: 2003-09-02
PRIOR APPLICATION NUMBER: US/08/974,690C
PRIOR FILING DATE: 1997-11-19
PRIOR APPLICATION NUMBER: PCT/EP94/03555
PRIOR APPLICATION NUMBER: PCT/EP94/03555
PRIOR FILING DATE: 1994-10-28
PRIOR FILING DATE: 1994-10-28
PRIOR FILING DATE: 1993-11-04
NUMBER OF SEQ ID NOS: 286
SOFTWARE: Patentin version 3.1
 Query Match
Best Local S
Matches 5
 NUMBER OF SEQ ID NOS: 463
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 273
 Sequence 273, A Publication No.
 GENERAL INFORMATION:
 SEQ ID NO 146
 Sequence 146, Application US/10651165
Publication No. US20040047877A1
 Best Local Similarity Matches 5; Conserv
 Query Match
 GENERAL INFORMATION:
 APPLICANT:
 APPLICANT: MAERTENS, Geert
TITLE OF INVENTION: IMMUNODOMINANT HUMAN T CELL EPITOPES OF HEPATITIS
TITLE OF INVENTION: VIRUS
 TITLE OF INVENTION: Expression Vectors for Stimulating an TITLE OF INVENTION: Immune Response and Methods of Using the FILE REFERENCE: 39963-20022.13
CURRENT APPLICATION NUMBER: US/10/371,260
CURRENT FILING DATE: 2003-02-21
 APPLICANT:
 APPLICANT: EPIMMUNE Inc
APPLICANT: Fikes, John
APPLICANT: Hermanson, (
 APPLICANT: LEROUX-ROELS, Geert APPLICANT: DELEYS, Robert APPLICANT: MAERTENS, Geert
 PRIOR APPLICATION NUMBER: US 60/085,751 PRIOR FILING DATE: 1998-05-15
 PRIOR APPLICATION NUMBER: US 09/078,904 PRIOR FILING DATE: 1998-05-13
 APPLICANT:
 TYPE: PRT
ORGANISM: Artificial Sequence
 FEATURE:
 ENGTH: 8
 ENGTH: 8
7 VPFYGRA 13
 1 IPFYGKA 7
 7 VPFYGRA 13
 Similarity 5; Conserv
 Fikes, John D.
Hermanson, Gary G.
 Chesnut, Robert W. Epimmune Inc.
 Sette, Alessandro
Ishioka, Glenn Y.
 Livingston,
 Application US/10371260 o. US20030220285A1
 Conservative
 Conservative
 42.2%;
71.4%;
 42.28;
 Brian
 Mismatches
 2
 Score 35; I
 Score 35; DB 4;
Pred. No. 1.7e+06;
 Mismatches
 DB 4;
 .7e+06;
 Length 8;
 0; Indels
 Length 8;
 Indels
 0,:
 Same
 0
 Gaps
 Gaps
 0
 0;
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 RESULT 17
US-10-888-084-1
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 RESULT 18
US-09-843-676-171
 US-10-888-084-1
 NUMBER OF SEQ ID NOS: 1
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 21
TYPE: PRT
ORGANISM: Artificial Sequence
 Sequence 171, Application Patent No. US20020164786A1 GENERAL INFORMATION:
 Publication No. US20
GENERAL INFORMATION:
 Sequence 1, Application US/10888084
 Matches
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Best Local
 FILE REFERENCE: 66661-113
CUTRENT APPLICATION NUMBER: US/10/888,084
CURRENT FILING DATE: 2004-07-09
PRIOR APPLICATION NUMBER: 60/486,581
PRIOR FILING DATE: 2003-07-10
 TITLE OF INVENTION: Affinity Capture of Peptides by
 APPLICANT: Aebersold, Ruedi
APPLICANT: Zhang, Ruedi
 OTHER INFORMATION: Examplary peptide
 FEATURE
 COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/09/843,676
FILING DATE: 26-Apr-2001
CLASSIFICATION S36
PRIOR APPLICATION NUMBER: US/08/854,050
FILING DATE: 09-MAY-1997
APPLICATION NUMBER: US/08/846,017
FILING DATE: 25-APR-1997
APPLICATION NUMBER: US/08/844,419
TILING DATE: 25-APR-1997
APPLICATION NUMBER: US/08/844,419
 CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
CORRESPONDENCE ADDRESSE:
ADDRESSEE: Two Embarcadero Center, 8th Floor
 Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
Harley, Calvin
Andrews, William H.
TITLE OF INVENTION: No. US20020164786A1el Telomerase
NUMBER OF SEQUENCES: 225
 APPLICANT: Cech, Thomas R.
 1 VVGVPYQGDATAL 13
 4 VMGVPFYGRAXSI 16
 6
 Similarity
 IPFYGKA 7
 CITY: San Francisco
STATE: California
 COUNTRY: United States
 Application US/09843676
 Conservative
 US20050095649A1
 ingner, Joachim
 42.2%;
46.2%;
18-APR-1997
 Score 35; DB Pred. No. 55;
 Mismatches
 of America
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 Length 21;
 Indels
 0
 Gaps
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RESULT 19
US-09-766-253-171
 밁
 Query Match
Best Local Similarity
Thes 7; Conserve
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SEQUENCE DESCRIPTION: SEQ ID NO: 171:
US-09-843-676-171
 Sequence 171, A Publication No.
 INFORMATION FOR SEQ ID NO: 171:
 COMPUTER: IBM PC COMPACTIBLE
CORRENT NO SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1
CURRENT APPLICATION NUMBER: US/09/766,253
FILING DATE: 19-Jan-2001
CLASSIFICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 08/846,017
FILING DATE: 1997-04-25
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
AFFORMATION:
NAME: APPLICATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002920US
 SEQUENCE CHARACTERISTICS:
LENGTH: 15 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
MOLECULE TYPE: peptide
 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
 Morin, Gregg B.
Harley, Calvin
Andrews, William H.
TITLE OF INVENTION: NO. US20020187471A1el Telomerase
 CORRESPONDENCE ADDRESS:
TELECOMMUNICATION INFORMATION:
 APPLICANT: Cech, Thomas R.
 TELECOMMUNICATION INFORMATION:
 ATTORNEY/AGENT INFORMATION:
 LVMGVPFYG 11
 LOCATION: 1..15
OTHER INFORMATION: /note= "motif D peptide from human relomerase core protein 1 (TCP1)"
 CITY: San Francisco
STATE: California
 LVRGVPEYG 12
 NAME: Apple, Randolph T.
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002930US
 ADDRESSEE: Townsend and Townsend and Crew LLP STREET: Two Embarcadero Center, 8th Floor
 APPLICATION NUMBER: US 08/724,643 FILING DATE: 01-OCT-1996
 NAME/KEY:
 TELEPHONE: (415) 576-0200
TELEPAX: (415) 576-0300
 Application US/09766253 o. US20020187471A1
 OF SEQUENCES:
 Conservative
 Lingner, Joachim
Nakamura, Toru
Chapman, Karen B.
 United States of America
 Peptide
 41.0%;
77.8%;
 171
 Score 34; DB
Pred. No. 58;
 Mismatches
 Version #1.30
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 <u>ب</u>
 Length 15;
 Indels
 0;
 Gaps
 0
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US-09-438-486-171
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 RESULT 20
 US-09-766-253-171
 Publication No.
 Sequence 171,
 Best Local Similarity
Matches 7; Conserv
 Query Match
 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
CLASSIFICATION: 536
 GENERAL INFORMATION:
 INFORMATION FOR SEQ ID NO: 171: SEQUENCE CHARACTERISTICS:
 APPLICANT:
APPLICANT:
APPLICANT:
 CLASSIFICATION: 536
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/724,643
 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
 SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
 NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
 APPLICANT: Andrews, William H.
TITLE OF INVENTION: No. US20030009019A1el Telomerase
NUMBER OF SEQUENCES: 223
 APPLICANT: Morin, Gregg B. APPLICANT: Harley, Calvin
 APPLICANT:
 APPLICANT:
 APPLICATION NUMBER: FILING DATE: 12-NOV CLASSIFICATION: 536
 APPLICATION NUMBER: FILING DATE: 01-OC
 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
 ZIP:
 STREET:
 ADDRESSEE:
 LOCATION: 1.15
OTHER INFORMATION: /note= "motif D peptide from human telomerase core protein 1 (TCP1)"
SEQUENCE DESCRIPTION: SEQ ID NO: 171:
 TOPOLOGY: linear MOLECULE TYPE: peptide
 FEATURE:
 94111-3834
 San Francisco
California
 LVRGVPEYG 12
 LVMGVPFYG 11
 LENGTH: 15 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
 NAME/KEY:
 TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
 E: Townsend and Townsend and Crew LLP Two Embarcadero Center, 8th Floor
 Application US/09438486
5. US20030009019A1
 United States of America
 Nakamura, Toru
Chapman, Karen B.
 Cech, Thomas R.
 Lingner, Joachim
 Conservative
INFORMATION:
 01-OCT-1996
 12-NOV-1999
 Floppy disk
 41.0%;
77.8%;
 Peptide
 US/09/438,486
 ; Score 34; DB; Pred. No. 58; 0; Mismatches
 Version #1.30
 BB
 ω
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 2
 Length 15
 Indels
 ٥,
 Gaps
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0;

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 ş
 OTHER INFORMATION: /note= "motif D peptide from human OTHER INFORMATION: telomerase core protein 1 (TCP1)" US-09-438-486-171
 US-10-053-758-171
 RESULT 21
 Sequence 171, Applicat Publication No. US2003 GENERAL INFORMATION:
 Query Match
Best Local
 Matches
 TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 171:
SEQUENCE CHARACTERISTICS:
LENGTH: 15 amino acids
 MOLECULE TYPE: peptide
 TELECOMMUNICATION INFORMATION: TELEPHONE: (415) 576-0200
 FEATURE:
 PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/08/854,050
FILING DATE: 09-MAY-1997
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
 NAME/KEY:
LOCATION:
 TELEPHONE:
 REFERENCE/DOCKET NUMBER:
 NAME: Apple, Rando
REGISTRATION NUMBER:
 STRANDEDNESS:
TOPOLOGY: li
 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/053,758
FILING DATE: 18-Jan-2002
 ATTORNEY/AGENT INFORMATION: NAME: Apple, Randolph
 Andrews, William H.
TITLE OF INVENTION: No. US20030032075A1el Telomerase
NUMBER OF SEQUENCES: 225
 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
 CORRESPONDENCE ADDRESS:
 APPLICANT:
 3 LVMGVPFYG 11
 4 LVRGVPEYG 12
 41.0%;
Similarity 77.8%;
7; Conservation
 amino acid
 APPLICATION NUMBER: US 08/724,643 FILING DATE: 01-OCT-1996
 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
 STREET: Two Embarcadero Center, 8th Floor
NAME: Apple, REGISTRATION
 CLASSIFICATION: 536
 COUNTRY: United States of America
 CITY: San Francisco
 ADDRESSEE: Townsend and Townsend and Crew LLP
 Application US/10053758
b. US20030032075A1
 Peptide
 linear
 Cech, Thomas R
 Morin, Gregg B.
Harley, Calvin
 Nakamura, Toru
Chapman, Karen B.
 lingner, Joachim
 California
 Randolph T
 NUMBER: 36,429
 /note= "motif D peptide from human
 36,429
 <u>.</u>
 015389-002931US
 Score 34; DE
Pred. No. 58;
 Mismatches
 DB
 3; Length 15;
 2;
 Indels
 0;
 Gaps
 0
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RESULT 22
US-10-054-295-171
 US-10-053-758-171
 Sequence 171, Application No. US2003
GENERAL INFORMATION:
 Matches
 Query Match
 TELEFAX: (415) 576-03:
INFORMATION FOR SEQ ID NO: 171:
SEQUENCE CHARACTERISTICS:
 Local
 Lingner, Joachim
Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
Morin, Gregg B.
Harley, Calvin
Andrews, William H.
Andrews, William H.
ANDRESS:
CORRESPONDENCES: 225
CORRESPONDENCE ADDRESS:
 APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
ATTORNEY/AGENT INFORMATION:
NAME: Apple, Randolph T.
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002930US
 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/854,050
FILING DATE: <Unknown>
 IOCATION: 1..15
OTHER INFORMATION: /note= "motif D peptide from human telomerase core protein 1 (TCP1)"
SEQUENCE DESCRIPTION: SEQ ID NO: 171:
 TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
 TELECOMMUNICATION INFORMATION:
 CURRENT APPLICATION DATA:
 COMPUTER READABLE FORM:
 APPLICANT: Cech,
 FEATURE
 MOLECULE TYPE: peptide
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 3 LVMGVPFYG 11
 Similarity 77.07; Conservative
 LVRGVPEYG 12
 APPLICATION NUMBER: US/10/054,295
FILING DATE: 18-Jan-2002
CLASSIFICATION: 536
 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn_Release #1.0, Version #1.30
 TYPE: amino acid
STRANDEDNESS: <Unknown>
 APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
 STREET: Two Embarcadero Center, CITY: San Francisco
 COUNTRY: United States of America
 STATE: California
 NAME/KEY:
 TOPOLOGY: linear
 REFERENCE/DOCKET NUMBER: 015389-002930US
TELEPHONE:
 ADDRESSEE: Townsend and
 LENGTH: 15 amino acids
 Application US/10054295
o. US20030044953A1
 Peptide
 41.0%;
 Thomas R.
 576-0300
 576-0200
 0
 Score 34; DB
Pred. No. 58;
 Mismatches
 Townsend and Crew LLP Center, 8th Floor
 4.
 <u>۲</u>
 Length 15;
 Indels
 0,
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RESULT 23
US-10-054-611-171
 8
 ş
 Sequence 171, Application US/10054611 Publication No. US20030059787A1 GENERAL INFORMATION:
 Matches
 Query Match
TELEFAX: (415) 576-0300 INFORMATION FOR SEQ ID NO: 171: SEQUENCE CHARACTERISTICS:
 TELEFAX: (415) 576-0300 INFORMATION FOR SEQ ID NO: 171: SEQUENCE CHARACTERISTICS:
 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS_MS-DOS
SOFTWARE: Patentin Release #1.0, Ve:
CURRENT APPLICATION NUMBER: US/10/054,611
FILING DATE: 18-Jan-2002
CLASSIFICATION: 536
 PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/854,050

FILING DATE: <Unknown:
APPLICATION NUMBER: US 08/846,017

FILING DATE: 25-APR-1997

APPLICATION NUMBER: US 08/844,419

FILING DATE: 18-APR-1997

APPLICATION NUMBER: US 08/724,643

FILING DATE: 01-OCT-1996

ATTORNAY/AGENT INFORMATION:
 Local
 NAME: Apple, Randolph T.
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002930US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
 CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, 8th Floor
 Andrews, William H.
TITLE OF INVENTION: No. US20030059787A1el Telomerase
NUMBER OF SEQUENCES: 225
 NAME/KEY: Peptide
LOCATION: 1..15
OTHER INFORMATION: /note= "motif D peptide from human
telomerase core protein 1 (TCP1)"
SEQUENCE DESCRIPTION: SEQ ID NO: 171:
 MOLECULE TYPE: peptide FEATURE:
 3 LVMGVPFYG 11
 Similarity
 CITY: San Francisco
STATE: California
COUNTRY: United States of America
 TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
 LVRGVPEYG 12
 LENGTH: 15 amino acids
 Conservative
 Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
Harley, Calvin
 Cech, Thomas R.
 ingner, Joachim
 41.0%; Score 34; DB 77.8%; Pred. No. 58; tive 0; Mismatches
 Version #1.30
 4.
 Length 15;
 Indels
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 Gaps
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. . . .
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; LENGTH: 15
; TYPE: PRT
·; ORGANISM: Human
US-10-282-960-70
 ; telomerase core protein 1 (TCP1)" ; sequence description: SEQ ID NO: 171: US-10-054-611-171
 RESULT 25
US-10-325-810-291
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 RESULT 24
US-10-282-960-70
 Sequence 291, Applicat
Publication No. US2003
GENERAL INFORMATION:
APPLICANT: Cech
 Matches
 SOFTWARE: Pa
 GENERAL INFORMATION:
APPLICANT: Chen, Si-Yi
APPLICANT: Zhaoyang, You
APPLICANT: Schroers, Roland
TITLE OF INVENTION: Human Telomerase Reverse Transcriptase
TITLE OF INVENTION: Associated Antigen
FILE REFERENCE: P02193US1
CURRENT APPLICATION NUMBER: US/10/282,960
CURRENT FILING DATE: 2002-10-29
CURRENT FILING DATE: 2002-10-29
CURRENT FILING DATE: 2002-10-29
 Best Local Similarity 77.8%;
Matches 7; Conservative
 Sequence 70, Ap
Publication No.
 Best Local Similarity
 Query Match
 PRIOR APPLICATION NUMBER: US 60/345,012
PRIOR FILING DATE: 2001-10-29
NUMBER OF SEQ ID NOS: 100
SOFTWARE: Patentin version 3.1
EQ ID NO 70
 CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
 Andrews, William H.
TITLE OF INVENTION: Human Telomerase Catalytic Subunit
 MOLECULE TYPE: peptide
 FEATURE:
 7 LVRGVPEYG 15
 3 LVMGVPFYG 11
 3 LVMGVPFYG 11
 LVRGVPEYG 12
 NAME/KEY: Peptide LOCATION: 1..15 OTHER INFORMATION:
 LENGTH: 15 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
CITY: San Francisco
 Application US/10282960
 Application US/10325810
b. US20030204069A1
 Conservative
 Lingner, Joachim
Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
Harley, Calvin B.
 Cech, Thomas R
 41.0%;
77.8%;
 0; Mismatches
 Score 34; DB
Pred. No. 58;
 0; Mismatches
 Score 34; DB
Pred. No. 58;
 DB
 4.
 4.
 <u>ب</u>
 Length 15
 Length 15;
 Indels
 Indels
 0,
 0,
 Class-II Restricted
 Gaps
 Gaps
 0
 0
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; telomerase core protein 1 (TCP1)"; sequence DESCRIPTION: SEQ ID NO: 291: US-10-325-810-291
Search completed: January 26, 2006, 08:38:37
Job time : 56.25 secs
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 Query Match 41.0%;
Best Local Similarity 77.8%;
Matches 7; Conservative
 TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 291:
 APPLICATION NUMBER: US 08/854,050
FILING DATE: 09-MAY-1997
APPLICATION NUMBER: US 08/911,312
FILING DATE: 14-AUG-1997
APPLICATION NUMBER: US 08/912,951
FILING DATE: 14-AUG-1997
APPLICATION NUMBER: US 08/915,503
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-OCT-1997
APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-OCT-1997
ATTORNEY/AGENT INFORMATION:
 SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/325,810
FILING DATE: 20-Dec-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
 COUNTRY: USA
ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
 NAME: Ausenhus, Scott L.
REGISTRATION NUMBER: 42,271
REFERENCE/DOCKET NUMBER: 015389-002620US
TELECOMMUNICATION INFORMATION:
 SEQUENCE CHARACTERISTICS:
 FEATURE:
 MOLECULE TYPE: peptide
 APPLICATION NUMBER: US/09/402,181
FILING DATE: 29-Sep-1997
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
 3 LVMGVPFYG 11
 || ||| ||
LVRGVPEYG 12
 NAME/KEY: Peptide LOCATION: 1..15
OTHER INFORMATION:
 STRANDEDNESS: <Unknown>
TOPOLOGY: linear
 LENGTH: 15 amino acids
TYPE: amino acid
 Score 34; DB 4; Length 15; Pred. No. 58; 0; Mismatches 2; Indels
 0
 Gaps
 0
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Title:
Perfect score:
Sequence:
 Result
 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 100 summaries
 Database
 Minimum DB
Maximum DB
 Searched
 Scoring table:
 Run on:
 OM protein -
 Total number of
 ö
 Pred. No. is the r
score greater than
and is derived by
 Score
 seq
 protein search, using sw model
 length:
 is the number of results predicted by chance to have a ater than or equal to the score of the result being printed. rived by analysis of the total score distribution.
 Match
 hits satisfying chosen parameters:
 BLOSUM62
Gapop 10.0 ,
 January 26, 2006, 07:48:50 ; Search time 8.5 Seconds (without alignments)
192.434 Million cell updates/sec
 US-09-662-293-10
83
 Query
 4 2 2 1
 283416 seqs,
 PIR_80:*
 DKLVMGVPFYGRAXSIE
 Copyright
 pir::+
pir::+
pir::+
 Length
 ည္ဝ
 GenCore version 5.1.6 (c) 1993 - 2006 Compugen Ltd
 BB
 96216763 residues
 Gapext 0.5
83933

A12793

A12793

B39089

PH1763

PH1820

PH1820

PH09730

PH09730

PH09730

PH1970

PH1981

S16929

A12917

S16929

A12929

S16929

S169
 SUMMARIES
 flavodoxin A Azo
protein phosphatas
Ig heavy chain DJ
T-cell receptor al
unknown protein en
sialokinin II - ye
sialokinin I - yel
LuxC protein - Pol
tetrahydroberberin
locustamyotropin I
 NADH2 dehydrogenas
Ig heavy chain CRD
chlorophyll a/b-bi
T cell receptor V-
T cell receptor al
T cell receptor al
 hypothetical TCL3/
T cell receptor al
T-cell receptor de
unidentified 5.4/3
locustamyotropin I
photosystem II oxy
protein QA300027
Ig H chain V-D-J r
leukocyte chemoatt
T-cell receptor al
 Ig mu chain D regi
glutamate dehydrog
hydrogenase (EC 1.
T cell receptor al
hypothetical TCL3/
 Description
 mu chain D
 A24867
ECLQ2M
A26120
S07203
S07201
A61033
C39109
S07436
A32486
D61491
 PH0809
DRUFPD
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PT0239
PH1794
A45590
S43360
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PT0332
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PN0173
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S04586
 C49042
A40693
S21152
PA0013
 A61361
```

ilvBN leader pepti Ig heavy chain J r T cell receptor al T-cell receptor de T-cell receptor al pigment dispersing pheromonotropin hypothetical prote hypothetical BCR/A fibrinopeptide B - tachykinin I - mig tachykinin II - mig tachykinin II - mig cytochrome P450 1A ranatachykinin II - scyliorhinin I - stachykinin II - mi 6-phosphofructokin uperolein - frog cyhysalaemin - frog ranatachykinin A tryptophyllin-rela photosystem II oxy protein QA600027 -GLYMA1 - soybean ( NADH2 dehydrogenas T-cell receptor al T-cell receptor be photosystem II 6.1 cytochrome c554 -proteasome chain 5 brain-derived neur T-cell receptor al histamine-releasin seed storage prote Ig heavy chain V r extension protein phe operon leader photosystem II ext distal-retinal-pig proteasome endopep 37K adherens junct IG H Chain V-D-J r IG heavy chain DJ IG heavy chain V r Ig heavy chain CDR T cell receptor al beta-pigment-dispe seed Ig H chain V-D-Ig heavy chain I Ig heavy chain I ranatachykinin A -hypothetical 1.2K tachykinin - Afric glyceraldehyde-3-p trypsin (EC 3.4.21 proteasome chain 7 hypothetical prote glutathione-bindin seed protein ws-4 bradykinin-like pe beta protein - rat metalloproteinase trypsin-like prote comosain (EC 3.4.2 transgelin - sheep eed storage prote eed storage prote -cell receptor al

T-cell receptor be photosystem II chl hypothetical prote Amino terminal of

Ig mu chain V regi
Ig kappa chain V r
Ig heavy chain CRD
T-cell receptor be

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A;Cross-references: UNIPARC:UPI000017AB7FC;Keywords: oxidoreductase
 R;KOVACCS, K.L.; Tigyi, G.; Thanh, L.T.; Lakatos, S.; Kiss, J. Biol. Chem. 266, 947-951, 1991
A;Title: Structural rearrangements in active and inactive A;Reference number: A39089; MUID:91093297; PMID:1845998
A;Accession: B39089
 hydrogenase (EC 1.18.99.1) 34K chain - Thiocapsa roseopersicina (fragment) C;Species: Thiocapsa roseopersicina C;Date: 27-Nov-1991 #sequence_revision 27-Nov-1991 #text_change 23-Jun-1993 C;Accession: B39089
 밁
 á
 Biochim. Biophys. Acta 445, 1-13, 1976
A;Title: Glutamate dehydrogenase from tuna
A;Reference number: A12729; MUID:76253947;
A;Accession: A12729
 glutamate dehydrogenase (EC 1.4.1.2) - bluefin tuna (tentative sequence) (f C;Species: Thunnus thynnus (bluefin tuna)
C;Date: 05-Jun-1987 #sequence_revision 05-Jun-1987 #text_change 05-Oct-2004
 밁
 δ
 A; Molecule type: mRNA
A; Residues: 1-7 <BAC>
A; Cross-references: UNIPARC: UPI000017C6D9;
C; Keywords: immunoglobulin
 R;Baccala, R.; Vo Quang, T.; Gilbert, M.; Ternynck, T.; Avrameas, Proc. Natl. Acad. Sci. U.S.A. 86, 4624-4628, 1989
A;Title: Two murine natural polyreactive autoantibodies are encod A;Reference number: A33932; MUID:89282823; PMID:2499887
A;Accession: E33932
 Ig mu chain D region (E7) - mouse
C;Species: Mus musculus (house mouse)
C;Date: 09-Mar-1990 #sequence_revision 09-Mar-1990 #text_change 16-Aug-1996
C;Accession: E33932
 A; Molecule type: protein A; Residues: 1-20 < KOV>
 A; Molecule type: protein A; Residues: 1-16 < VER>
 C;Accession: A12729
R;Veronese, F.M.; Bevilacqua, R.; Boccu, E.;
 A; Status: preliminary
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 Keywords: oxidoreductase
 Experimental source: liver
 Query Match
Best Local
 Query Match
 Cross-references: UNIPROT: P20016; UNIPARC: UPI00001292E1
 Query Match
 4
 N
 æ
 Similarity 5; Conserv.
 4.
 Similarity
 VMGVPFYGRAXSIE 17
 VVDVPFGGAKAGVK 16
 PFYCK 6
 PFYGR 12
 Tigyi, G.; Thanh, L.T.; Lakatos, S.; Kiss, Z.; Bagyinka, C.
 Conservative
 Conservative
 31.3%;
35.7%;
 33.7%;
 30.1%;
 Score 26; DB 2;
Pred. No. 3.3e+02;
3; Mismatches 6
 Score 28; DB 2;
Pred. No. 2.8e+05
1; Mismatches
 Score
 ALIGNMENTS
 25;
 liver. Purification, PMID:182270
 GB:M27106
 Brown,
 BB
<u>ب</u>
 Length 16;
 D.M.
 Length 7;
Length 20;
 forms of hydrogenase
 encoded by nonmutated
 sequence) (fragment)
 characteristics
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 Gaps
 Gaps
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G;Comment: This bequery
C;Keywords: fusion prote-in
F;1-5/Region: TC:13 prote-oncogene derived
F;10-16/Region: T-cell receptor delta chain derived
F;10-16/Region: T-cell receptor delta chain derived
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PH1763
PH2763
T cell receptor alpha chain V region (clone 1V alpha 23-2) - human (fragment C;Species: Homo sapiens (man)
C;Species: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 16-Jul-1999
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 hypothetical TCL3/TCRD (T-cell receptor delta chain) mutant fusion protein - C;Species: Homo sapiens (man) C;Date: 28-Jan-2000 #sequence_revision 28-Jan-2000 #text_change 09-Jul-2004
R;Porcelli, S.; Yockey, C.E.; Brenner, M.B.; Balk, J. Exp. Med. 178, 1-16, 1993
A;Title: Analysis of T cell antigen receptor (TCR)
 A;Cross-references: UNIPROT:Q15632; UNIPARC:UPI000007279D; GB:M33602; NID:g339907; PIDN:
C;Comment: This sequence is the hypothetical translation of a chimeric translocation mut
 A; Molecule type: DNA
A; Residues: 1-16 < ZUT>
 R;Zutter, M.; Hockett, R.D.; Roberts, C.W.; McGuire, E.A.; Bloomstone, Proc. Natl. Acad. Sci. U.S.A. 87, 3161-3165, 1990
A;Title: The t(10;14) (q24;q11) of T-cell acute lymphoblastic leukemia jA;Reference number: I59162; MUID:90222189; PMID:2326274
 A;Status: translation not shown; translated
 A; Accession: 179565
 A;Cross-references: UNIPARC:UPI000017C36E
 A; Molecule type: mRNA
A; Residues: 1-14 < POR>
 A;Status: preliminary
 A; Accession:
 A;Reference number: PH1754; MUID:93301585; PMID:8391057
 A; Title: Analysis of
 R;Porcelli, S.; Yockey, C.E.; Brenner, M.B.; Balk, S.P. J. Exp. Med. 178, 1-16, 1993
 Accession: I79565
 ;Accession:
 Matches
 Query Match
Best Local
 Matches
 Matches
 Best Local Similarity
 Query Match
 10
 11 DKLIFG 16
 1 DKLVMG 6
 4.
 Similarity
 Similarity
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 PH1763
 DKLVMG 6
 VIGLPF 15
 DKLIFG 14
 VMGVPF
 Conservative
 Conservative
 Conservative
 T cell antigen receptor (TCR)
 28.9%;
 28.9%;
66.7%;
 66.7%;
 2
 Score 24;
Pred. No.
 Score 24; DB 2; 1
Pred. No. 6.4e+02;
1; Mismatches 1
 Pred. No. 6.2e+02;
2; Mismatches 0;
 Mismatches
 from
 DB 4;
7.4e+02
 GB/EMBL/DDBJ
 တ
 expression
 expression
 #text_change
 Length 16;
 Length 14;
 Indels
 Indels
 Indels
 human (fragment)
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by human peripheral

 human (fragment)

 human
 0,
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 Gaps
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 juxtaposes the delt
 J.; Morton,
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 human (fragi
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RESULT 9
 R;Komatsu, S.; Kajiwara, H.; Hirano, H.
Theor. Appl. Genet. 86, 935-942, 1993
A;Title: A rice protein library; a data-file
A;Reference number: PQ0696
A;Accession: PQ0730
 C;Accession: 146652
R;Yang, Y.G.; Ohta, S.; Yamada, S.; Shimizu, M.; Takagaki, Y.
J. Immunol. 155, 1981-1993, 1995
A;Title: Diversity of T cell receptor delta-chain cDNA in the A;Reference number: 146623; MUID:95363165; PMID:7636249
A;Accession: 146652
 RESULT 7
I46652
NADH2 dehydrogenase (EC 1.6.99.3) 14K chain - fava bean mitochondrion (fragn N;Alternate names: complex I 14K chain; NADH-ubiquinone reductase 14K chain C;Species: mitochondrion Vicia faba (fava bean) C;Date: 03-May-1994 #sequence_revision 07-Oct-1994 #text_change 09-Jul-2004
 밁
 ş
 C;Date: 20-Apr-2000 #sequence_revision
C;Accession: PQ0730
 unidentified 5.4/35K protein [imported] - C;Species: Oryza sativa (rice)
 밁
 δ
 A; Molecule type: mRNA
A; Residues: 1-20 < YAN>
 A; Molecule type: protein A; Residues: 1-12 < KOM>
 T-cell receptor delta-chain J-delta-1 segment - pig (fragment)
C;Species: Sus scrofa domestica (domestic pig)
C;Species: 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
 밁
 Ş
 A; Cross-references: UNIPARC: UPI000017C388
 A; Molecule type: mRNA
A; Residues: 1-17 < POR>
 A; Reference number: A; Accession: PH1820
 A;Cross-references: UNIPROT:Q7M1U3; UNIPARC:UPI000017B124
 A;Status: preliminary; translated from GB/EMBL/DDBJ
 Status: preliminary
 Status: preliminary
 Matches
 Query Match
Best Local
 Query Match
Best Local
 Keywords: T-cell receptor
 Matches
 Cross-references: UNIPARC:UPI000011B2B7; GB:D49560; NID:g1041172; PIDN:BAA08504.1;
 Query Match
 Local Similarity
 Local
 12
 μ
 7
 σ
 1 DKTVMG 6
 4,
 4
 Similarity
 4
 Similarity
 DKT-VMG 6
 DKLIFG 17
 FYGRA 13
 DKLIFG 11
 Conservative
 Conservative
 Conservative
 PH1754;
 28.9%;
66.7%;
 28.9%;
66.7%;
 80.0%;
 27.7%;
 MUID:93301585; PMID:8391057
 1;
 <u>,,</u>
 Score 24; DB:
Pred. No. 7.9e
1; Mismatches
 Score 23; DB 2;
Pred. No. 8.2e+02;
0; Mismatches 1
 Score 24;
Pred. No.
 Mismatches
 20-Apr-2000 #text_change
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 of.
 DB 2;
 DB 2;
.9e+02;
 rice proteins
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 Length 12;
 Length 20;
 Length 17,
 Indels
 separated
 thymus
 09-Jul-2004
 05-Nov-1999
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 <u>,</u>
 of a
 Gaps
 Gaps
 (fragment)
 by two-dimension
 one-month-old
 0
 0
 0
 PI
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K; DaROChe, J.; Bennett, J.; Falkowski, P.G.
Gene 95, 165-171, 1990
A;Title: Characterization of a cDNA encoding for the 28.5-kDa LHCII apoprotein A;Reference number: JW0040; MUID:91065528; PMID:2249775
A;Accession: PW0004
 A;Cross-references: UNIPARC:UPI0000178174
C;Superfamily: chlorophyll a/b-binding protein
C;Keywords: chloroplast; grana; light-harvesting complex; membrane adhesion; membrane
 A;Cross-references: UNIPARC:UPI000017C217
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobuli
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 R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, J. Exp. Med. 173, 355-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain div. A;Reference number: PT0222; MUID:91108337; PMID:1899102
 Ig heavy chain CRD3 region (clone J2-106C) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
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 A;Genome: mitochondrion
C;Superfamily: NADH dehydrogenase
C;Keywords: electron transfer; mitochondrion;
 A; Moslecule type: protein
A; Residues: 1-19 < LET>
A; Cross-references: UNIPROT: Q7M2G7;
C; Comment: Complex I, mitochondrial
ranging from 5K to 75K.
 R;Leterme, S.; Boutry, M.
Plant Physiol. 102, 435-443, 1993
A;Title: Purification and preliminary characterization of mitochondrial complex I (NADH A;Reference number: PQ0775; MUID:94151437; PMID:8108509
 A;Molecule type: protein
A;Residues: 1-15'<LAR>
 RESULT 11
 A;Molecule type: DNA
A;Residues: 1-9 <YAM>
 C;Accession: PT0324
 C; Comment: This enzyme catalyzes electron
 A;Accession: PT0324
 C; Genetics:
 A; Accession: PQ0790
 C; Accession:
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 Score 22; DB 2; Pred. No. 1.6e+03;
 Score 23; DB 2;
Pred. No. 1.3e+03;
1; Mismatches 1
 Score 22; I
Pred. No. 2.
 UNIPARC:UPI0000175118
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S57584
T cell
 R;Burrows, S.R.; Silins, S.L.; Moss, D.J.; Khanna, R.; Misko, I.S.; Argaet, V.P. submitted to the EMBL Data Library, June 1995
A;Description: T cell receptor repertoire for a viral epitope in humans is diversified A;Reference number: S57494
A;Accession: S57584
 RESULT 14
PH1801
 RESULT 13
PH1782
T cell receptor alpha chain V region (clone 2DN V alpha 24-3) - human (fragment)
T cell receptor alpha chain V region (clone 2DN V alpha 24-3) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 16-Ull-1999 #sequence_revision 16-Jul-1999 #text_change 16-Jul-1999
 T cell receptor V-D-J junctional alpha chain region - human (fragment) C;Species: Homo sapiens (man) C;Date: 19-Oct-1995 #sequence_revision 17-Nov-1995 #text_change 05-Nov-1999 C;Accession: S57584
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A;Reference number: PH1754;
A;Accession: PH1801
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-17 <POR>
 C;Dace: 10-0-191801
C;Accession: PH1801
R;Porcelli, S; Yockey, C.E.; Brenner, M.B.;
R;Porcelli, S.; Yockey, C.E.; Brenner, M.B.;
 T cell receptor alpha chain V region (clone 3PBL V alpha 24-7) - C;Species: Homo sapiens (man) C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 1 C;Accession: PH1801
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 A;Reference number: PH1754; MUID:93301585; PMID:8391057 A;Accession: PH1782
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 A; Molecule type: mRNA
A; Residues: 1-16 < POR>
 J. Exp. Med. 178, 1-16, 1993
A;Title: Analysis of T cell
 R;Porcelli, S.; Yockey, C.E.; Brenner, M.B.; Balk, J. Exp. Med. 178, 1-16, 1993
 C; Accession: PH1782
 C; Keywords: T-cell receptor
 A; Title: Analysis of T cell antigen receptor (TCR) expression
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 Cross-references: UNIPARC:UPI000017C375
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 EMBL: Z49956; NID: g887466;
 PMID:8391057
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C;Accession: S16929
R;Bagby, S.; Barker, P.D.; Hill, H.A.O.; Sanghera, G.S.; Dunbar, B.; Ashby, G.A.; Eady, Biochem. J. 277, 313-319, 1991
A;Title: Direct electrochemistry of two genetically distinct flavodoxins isolated from A;Reference number: S16929; MUID:91315397; PMID:1859358
A;Accession: S16929
Ig heavy chain DJ region (clone C439-111) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 07-May-1999
C;Accession: PH1304
R;Wasserman, R.; Galili, N.; Ito, Y.; Reichard, B.A.; Shane, S.; Rovera, G. J. Exp. Med. 176, 1577-1581, 1992
 RESULT 17
PH1304
 Biochem. Biophys. Res. Commun. 163, 131-136, 1989
A;Title: Expression of rat protein phosphatase 2C (IA)
A;Reference number: A32917; MUID:89374212; PMID:2549985
A;Accession: A32917
 A; Description: acts as an electron donor to the Mo-containing C; Keywords: electron transfer; flavoprotein; FMN \,
 A;Molecule type: protein
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A;Cross-raferences: UNIPROT:P23002; UNIPARC:UPI000012A8CA
A;Experimental source: strain MCD1155
 flavodoxin A - Azotobacter chroococcum N; Alternate names: AcFldA
 В
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 A;Molecule type: mRNA
A;Residues: 1-18 <TAM>
A;Cross-references: UNIPARC:UPI000017C9A7
 protein phosphatase - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 08-Dec-1989 #sequence_revision 08
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 A; Status: preliminary; not compared with conceptual translation
 A32917
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 C; Function:
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 A;Cross-references: UNIPARC:UPI000017C383
 ;Species: Azotobacter chroococcum
;Date: 19-Mar-1997 #sequence_revision 11-Jun-1999
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A;Title: Predominance of fetal type DJH joi A;Reference number: PH1302; MUID:93094761; A;Accession: PH1304
A;Molecule type: DNA
A;Residues: 1-19 <WASA
A;Cross-references: UNIPARC:UPI0000176934
C;Superfamily: immunoglobulin V region; imm
 A;Experimental source:
C;Genetics:
A;Gene: Z2087
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 A;Title: Genome sequence of enterohemorrhagic Escherichia A;Reference number: A85480; MUID:21074935; PMID:11206551 A;Accession: A85712
 iller, L., Grotbeck, E.J.; Davis, Nature 409, 529-533, 2001
 R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glas iller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta,
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 A,Cross-references: UNIPARC:UPI0000176DB6; EMBL:X02858 A,Note: this sequence was determined from the germline C,Superfamily: immunoglobulin V region; immunoglobulin
 RESULT 18
S03504
 A; Residues: 1-21 <STO>
 A; Molecule type: DNA
 C; Keywords:
 A, Title: Genomic organization of the genes A, Reference number: S03503; MUID:85296332; A, Accession: S03504
 R; Winoto, A.; Mjolsness, S.; Hood, L. Nature 316, 832-836, 1985
A; Title: Genomic organization of the
 unknown protein encoded by prophage CP-9330 [imported] -
 A; Molecule type: DNA
A; Residues: 1-21 <WIN>
 T-cell receptor alpha chain J region (TT11) - mouse (fragment)
C;Species Mus musculus (house mouse)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_changer.
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 ;Cross-references: UNIPROT:Q8X4E1; UNIPARC:UPI0000DDDFB; GB:AE005174; NID:g12515036;
;Experimental source: strain O157:H7, substrain EDL933
 ;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
 Status: preliminary
 Accession: A85712
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 Accession: S03504
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 A; Cross-references:
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LuxC protein - Photobacterium phosphore C; Species: Photobacterium phosphoreum C; Date: 30-Dec-1991 #sequence_revision
 C;Accession: B39853
R;Ferri, S.R.; Meighen, E.A.
R;Ferri, S.R.; Meighen, E.A.
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R;Ferri, S.R.; Millon, E.A.
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R;Reference number: A39853; MUID:91302295; PMID:2071574
A;Accession: B39853
 A; Molecule type: DNA
A; Residues: 1-11 <FEI
 C;Accession: A49581
R;Champagne, D.E.; Ribeiro, J.M.
Proc. Natl. Acad. Sci. U.S.A. 91, 138-142,
A;Title: Sialokinin I and II: vasodilatory
A;Reference number: A49581; MUID:94105119;
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 sialokinin I - yellow fever mosquito
C;Species: Aedes aegypti (yellow fever
C;Date: 06-Oct-1994 #sequence_revision
 A;Cross-references: UNIPROT:P42635; UNIPARC:UPI0000136FEC A;Experimental source: Rockefeller, salivary gland A;Note: sequence extracted from NCBI backbone (NCBIP:1418
 R;Champagne, D.E.; Ribeiro, J.M.
Proc. Natl. Acad. Sci. U.S.A. 91, 138-142,
A;Title: Sialokinin I and II: vasodilatory
A;Reference number: A49581; MUID:94105119;
A;Accession: B49581
 A; Experimental source:
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A;Residues: 1-10 <CHA>
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A;Reference number: A44957
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A;Residues: 1-14 <TAK>
 RESULT 25
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 RESULT 24
B61620
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 photosystem II oxygen-evolving complex protein 2 - common tobacco (cv. Samsun NN) (fragn C;Species: Nicotiana tabacum (common tobacco) C;Date: 03-Jun-1993 #sequence_revision 03-Jun-1993 #text_change 18-Jun-1993 C;Accession: G44957 R;Takeda, S.; Sato, F.; Ida, K.; Yamada, Y. Plant Cell Physiol. 31, 215-221, 1990 A;Title: Characterization of polypeptides that accumulate in cultured Nicotiana tabacum
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 R;Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; Kochansky, J.P.; De Loof, A. Insect Biochem. Mol. Biol. 22, 447-452, 1992
A;Title: Isolation, identification and synthesis of locustamyotropin III and IV, two add A;Reference number: A61620
A;Recession: B61620
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 R;Tsugita, A
submitted to JIPID, April 1993
A;Reference number: PS0206
A;Accession: PS0325
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 A;Cross-references: UNIPROT:P41490; UNIPARC:UPI000012E792
C;Keywords: amidated carboxyl end; neuropeptide
F;13/Modified site: amidated carboxyl end (Leu) #status experimental
 C; Keywords: oxidoreductase
 A;Molecule type: protein
A;Residues: 1-13 <75U>
A;Cross-references: UNIPARC:UPI000017B121
A;Experimental source: callus
 tetrahydroberberine oxidase (EC 1.3.3.8) - rice (strain Nihonbare) (fragment)
 A; Molecule type: protein
A; Residues: 1-13 <SCH>
 A;Status: preliminary
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C;Species: Locusta migratoria (migratory locust)
C;Date: 21-Jul-1995 #sequence_revision 28-Jul-1995 #text_change 09-Jul-2004
C;Accession: B61620
 ;Species: Oryza sativa (rice)
;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 11-Apr-1995;Accession: PS0325
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A;Cross-references: UNIPARC:UPI000017B0AD
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APPLICANT: Bartlett et al.
TITLE OF INVENTION: AAV METHODS
FILE REFERENCE: 28335/4135
CURRENT APPLICATION NUMBER: US/11/145,035
CURRENT FILING DATE: 2005-06-03
PRIOR APPLICATION NUMBER: US 10/038,972
PRIOR FILING DATE: 2002-01-04
PRIOR APPLICATION NUMBER: US 60/260,124
PRIOR APPLICATION NUMBER: US 60/260,124
PRIOR FILING DATE: 2001-01-05
NUMBER OF SEQ ID NOS: 45
SOFTWARE: PATENTIN VETSION 3.3
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-11-054-515-2757
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; OTHER INFORMATION: Synthetic peptide
US-11-145-035-4
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Publication No. US20050287122A1
GENERAL INFORMATION:
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Best Local Similarity
Matches 6; Conserv
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SEQ ID
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                Remaining Prior Application data removed - See File Wrapper or PALM. NUMBER OF SEQ ID NOS: 3247
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CURRENT FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
PRIOR FILING DATE: 2004-02-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Ruben et al. TITLE OF INVENTION: Antibodies that Immunospecifically Bind FILE REFERENCE: PF523P3
                                                      PRIOR APPLICATION NUMBER: 60/240,816 PRIOR FILING DATE: 2000-10-17
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TYPE: PRT
ORGANISM: Artificial sequence
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OR FILING DATE: 2004-06-18
OR APPLICATION NUMBER: 10/293,418
OR APPLICATION NUMBER: 10/293,418
OR FILING DATE: 2002-11-14
OR APPLICATION NUMBER: 60/331,469
OR FILING DATE: 2001-11-16
OR FILING DATE: 2001-12-19
OR APPLICATION NUMBER: 60/340,817
OR FILING DATE: 2001-12-19
OR APPLICATION NUMBER: 09/880,748
OR FILING DATE: 2001-06-15
                                                                                          APPLICATION NUMBER: 60/277,379
FILING DATE: 2001-03-21
APPLICATION NUMBER: 60/276,248
FILING DATE: 2001-03-16
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US-11-054-515-2223
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Pred. No. 4.5;
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                                                                                                                                                                                                                                                                                                                                                                                                                  US-11-097-864-762
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 762, Application US/10859643 Publication No. US20060002993A1
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Best Local Similarity 62.5%;
Matches 5; Conservative
                                                   APPLICANT: Morrison, Karen Jane Meyrick
APPLICANT: Jakobovits, Aya
APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: NUCLEGIC ACID AND CORRESPONDING PROTEIN NAMED 161P2F10B
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF CANCER
FILE REFERENCE: 511582006205
CURRENT APPLICATION NUMBER: US/11/097,864
CURRENT FILING DATE: 2005-04-01
PRIOR APPLICATION NUMBER: US 10/062,109
PRIOR APPLICATION NUMBER: US 10/062,480
PRIOR FILING DATE: 2001-11-07
PRIOR FILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 765
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Challita-Eid, Pia M. APPLICANT: Raitano, Arthur B. APPLICANT: Faris, Mary
                                                                                                                                                                                                                                                                                                                APPLICANT: Challita-Eid, Pia M. APPLICANT: Raitano, Arthur B.
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CURRENT FILING DATE: 2004-06-02
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TITLE OF INVENTION: Nucleic Acid and Corresponding Protein
TITLE OF INVENTION: Entitled 161P2F10B Useful in Treatment and Detection
TITLE OF INVENTION: Cancer
                                                                                                                                                                                                                                                                           APPLICANT:
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TYPE: PRT
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                                                                                                                                                                                                                                                                                               Faris, Mary
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Pred. No.
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US-11-097-912-762
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; TYPE: PRT
; ORGANISM: Homo Sapien
US-11-097-864-762
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US-11-097-912-762
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CURRENT APPLICATION NUMBER: US/11/097,912
CURRENT FILING DATE: 2005-04-01
PRIOR APPLICATION NUMBER: US 10/062,109
PRIOR FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: US 10/005,480
PRIOR FILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 765
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SEQ ID NO 762
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Best Local Similarity 46.2%;
Matches 6; Conservative
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APPLICANT:
APPLICANT: Grey, Howard M.
APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2660.0040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN ENTITLED 161P2F10B
TITLE OF INVENTION: USEFUL IN TREATMENT AND DETECTION OF CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Challita-Eid, Pia M. APPLICANT: Raitano, Arthur B. APPLICANT: Faris Mary APPLICANT: Hubert, Rene S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 46.
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Southwood, Scott
                                                                                                                                                                                Chesnut, Robert
Baker, Denise Marie
Celis, Esteban
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                                                                                                                                                                Kubo,
                                                                                                                                                                                                                                        Livingston,
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b. US20050265921A1
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Pred. No.
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RESULT 7
US-10-665-658-53
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 53, Application No. US2009 GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 34.9%;
Best Local Similarity 46.2%;
Matches 6; Conservative
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TELEPHONE: 650/225-4462
TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 53:
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                                                                                                                                                                                                                    APPLICATION NUMBER: US/10/665,658
FILING DATE: 19-Sep-2003
CLASSIFICATION: <URNOwn>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/031971
FILING DATE: 27-NOV-1996
APPLICATION NUMBER: 08/974899
FILING DATE: 20-NOV-1997
APPLICATION NUMBER: 09/420745
FILING DATE: 20-CCT-1999
APPLICATION NUMBER: 09/420745
FILING DATE: 20-CCT-1999
APPLICATION NUMBER: 09/420745
                                                                                                                                                      APPLICATION NUMBER: 09/975798
FILING DATE: 28-FEB-2001
ATTORNEY/AGENT INFORMATION:
                                                            NAME: Tan, Lee K.
REGISTRATION NUMBER: 39,447
REFERENCE/DOCKET NUMBER: P1014R1C1D1C1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: WinPatin (CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 94080
COMPUTER READABLE FORM:
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FILING DATE: 1993-11-29
APPLICATION NUMBER: US 08/159,339
FILING DATE: 1993-11-29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1993-03-05
APPLICATION NUMBER: US 08/073,205
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Humanized Anti-CD11a Antibodies NUMBER OF SEQUENCES: 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Jardieu, Paula M.
Presta, Leonard G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1993-06-04
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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STATE: California
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Pred. No. 16;
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                                                           Query Match
Best Local S
Matches 5
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Best Local :
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REFERENCE/DOCKET NUMBER: P1014R1C1D1C1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-4462
TELEPAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 57:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL
                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/031971
FILING DATE: 27-NOV-1996
APPLICATION NUMBER: 08/97489
FILING DATE: 20-NOV-1997
APPLICATION NUMBER: 09/420745
FILING DATE: 20-OCT-1999
APPLICATION NUMBER: 09/975798
FILING DATE: 28-FEB-2001
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Jardieu, Paula M.
Presta, Leonard G.
TITLE OF INVENTION: Humanized Anti-CD11a Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                         SEQUENCE DESCRIPTION: SEQ ID NO: 57:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
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                                                           Similarity 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                             GVPFYGRA 13
                                                                                                                                                       LENGTH: 11 amino acids
TYPE: Amino Acid
TOPOLOGY: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/10/665,658 FILING DATE: 19-Sep-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 1 DNA Way
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                                                                                                                                                                                                                                                                                                                   NAME: Tan, Lee K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: South San Francisco
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                                                                            33.7%;
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Pred. No. 16;
1; Mismatches
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                                                                            Score 28;
Pred. No.
                                                             Mismatches
                                                                            DB 6; Length 11; 16;
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                                                             Indels
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RESULT 9
US-10-665-658-54
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US-11-145-035-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 54, Application US/10665658
Publication No. US20050276801A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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Best Local Similarity
                                                                               APPLICANT: Bartlett et al.
TITLE OF INVENTION: AAV VECTORS AND METHODS
FILE REFERENCE: 28335/41335
CURRENT APPLICATION NUMBER: US/11/145,035
CURRENT FILING DATE: 2005-06-03
PRIOR APPLICATION NUMBER: US 10/038,972
PRIOR FILING DATE: 2002-01-04
PRIOR APPLICATION NUMBER: US 60/260,124
PRIOR FILING DATE: 2001-01-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 650/952-9881 INFORMATION FOR SEQ ID NO: 54:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 39,447
REFERENCE/DOCKET NUMBER: P1014R1C1D1C1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-4462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 09/975798
FILING DATE: 28-FEB-2001
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE DESCRIPTION: SEQ ID NO: 54:
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Presta, Leonard G
                                                                                                                                                                                                                                                                                                                                                                                  6 GVPFYG 11
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FILING DATE: 27.NOV-1996
APPLICATION NUMBER: 08/974899
FILING DATE: 20.NOV-1997
APPLICATION NUMBER: 09/420745
FILING DATE: 20-OCT-1999
                                                                                                                                                                                                                                                                                                                                          GIAFYG 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 11 amino acids
TYPE: Amino Acid
TOPOLOGY: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
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STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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Pred. No. 24;
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RESULT 12
US-10-929-988-156
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TITLE OF INVENTION: AAV VECTORS AND METHODS
FILE REFERENCE: 28335/41335
CURRENT APPLICATION NUMBER: US/11/145,035
CURRENT FILING DATE: 2005-06-03
PRIOR APPLICATION NUMBER: US 10/038,972
PRIOR APPLICATION NUMBER: US 60/260,124
PRIOR APPLICATION NUMBER: US 60/260,124
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US-11-145-035-6
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; OTHER INFORMATION: Synthetic Bovine Papilloma Virus Peptide
US-11-145-035-2
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Best Local S
Matches 5
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Best Local Similarity
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                                                                                                                                                                                                                                                                               Sequence 156, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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SOFTWARE: PatentIn version 3.3
SEQ ID NO 2
LENGTH: 11
                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                     APPLICANT: DUFFIN, DAVID J.

APPLICANT: PIPLANI, SUNILA
APPLICANT: MERRILL, BARBARA MCEOWEN
APPLICANT: MERRILL, BARBARA MCEOWEN
APPLICANT: SCHATZ, PETER JOSEPH
TITLE OF INVENTION: COMPOUNDS HAVING AFFINITY FOR THE GRANULOCYTE-COLONY
TITLE OF INVENTION: USEN
TITLE OF INVENTION: USES
FILE REFERENCE: 0300-0014
CURRENT APPLICATION NUMBER: US/10/929,988
CURRENT APPLICATION NUMBER: US/99/620,091
PRIOR APPLICATION NUMBER: US/99/620,091
PRIOR FILING DATE: 2000-07-20
NUMBER OF SEC IN NOC. 437-20
                                                                                                                                                                                                                                 APPLICANT: CWIRLA, STEVE APPLICANT: BALU, PALANI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2001-01-05
NUMBER OF SEQ ID NOS: 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Synthetic Bovine Papilloma Virus Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Artificial sequence
OF SEQ ID NOS: 491
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5; Conserv
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                                                                                                                                                                                                                                                                               Application US/10929988 o. US20050277588A1
                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32.5%;
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Pred. No. 5.8e+04;
0; Mismatches 1
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Pred. No.
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24;
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US-11-139-435-4
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                                                                                      SEQ ID NO 4
LENGTH: 19
TYPE: PRT
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Best Local Similarity
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LENGTH: 10
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TYPE: PRT
                                        OTHER INFORMATION:
                                                          FEATURE:
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GENERAL INFORMATION:

APPLICANT: Fann, Ming-Ji
TITLE OF INVENTION: Cellular Proliferation Co:
FILE REFERENCE: 17741-002001

CURRENT APPLICATION NUMBER: US/11/139,435

CURRENT FILING DATE: 2005-05-27

PRIOR APPLICATION NUMBER: US 60/575,611

PRIOR FILING DATE: 2004-05-27

NUMBER OF SEQ ID NOS: 36
                                                                                                                                                                                                                                                                                             Sequence 4, Application US/11139435
Publication No. US20050287664A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn version 3.3 SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5, Application US/11145035 Publication No. US20050287122A1
                                                                               SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 10/038,972
PRIOR FILING DATE: 2002-01-04
PRIOR APPLICATION NUMBER: US 60/260,124
PRIOR FILING DATE: 2001-01-05
NUMBER OF SEQ ID NOS: 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: 28335/41335
CURRENT APPLICATION NUMBER: US/11/145,035
CURRENT FILING DATE: 2005-06-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Bartlett et al.
TITLE OF INVENTION: AAV VECTORS AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 10
TYPE: PRT
ORGANISM: Artificial Sequence
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Synthetic Bovine Papilloma Virus Peptide
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Pred. No. 36;
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US-10-665-658-56
; Sequence 56, Application US/10665658
; Publication No. US20050276801A1
; GENERAL INFORMATION:
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                                                                                         RESULT 16
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Best Local S
Matches 4
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Publication No. US2005
GENERAL INFORMATION:
APPLICANT: Jard
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Matches 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 39,447
REFERENCE/DOCKET NUMBER: P1014RICIDICI
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-4462
TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 51:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/665,658

FILING DATE: 19-Sep-2003

CLASSIFICATION: «UDKIOWIN-
PRIOR APPLICATION: «UDKIOWIN-
PRIOR APPLICATION NUMBER: 60/031971

FILING DATE: 27-NOV-1996

APPLICATION NUMBER: 08/974899

FILING DATE: 20-NOV-1997

APPLICATION NUMBER: 09/420745

FILING DATE: 20-NOV-1999

APPLICATION NUMBER: 09/420745

FILING DATE: 20-CCT-1999

APPLICATION NUMBER: 09/975798

FILING DATE: 28-FEB-2001

ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
APPLICANT: Jardieu, Paula M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Humanized Anti-CD11a Antibodies NUMBER OF SEQUENCES: 71
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                                                                                                                                                                                                                       Similarity
4; Conser
                                                                                                                                                                                   GVPFYG 11
                                                                                                                                                                                                                                                                                                                                LENGTH: 11 amino acids
TYPE: Amino Acid
TOPOLOGY: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Tan, Lee K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: California
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CITY: South San Francisco
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Presta, Leonard G.
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42.9%;
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RESULT 17
US-10-665-658-58
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 56:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/031971
FILING DATE: 27-NOV-1996
APPLICATION NUMBER: 08/974899
FILING DATE: 20-NOV-1997
APPLICATION NUMBER: 09/420745
FILING DATE: 20-OCT-1999
APPLICATION NUMBER: 09/975798
FILING DATE: 28-FEB-2001
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compactible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/665,658
FILING DATE: 19-Sep-2003
CLASSIFICATION: «Unknown»
ZIP: 94080
COMPUTER REALABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Tan, Lee K.

REGISTRATION NUMBER: 39,447
REFERENCE/DOCKET NUMBER: P1014R1C1D1C1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-4462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1,44 Mb floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Presta, Leonard G.
TITLE OF INVENTION: Humanized Anti-CD11a Antibodies
NUMBER OF SEQUENCES: 71
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Genente
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                         TITLE OF INVENTION: Humanized Anti-CD11a Antibodies NUMBER OF SEQUENCES: 71
                                                                                                                                                                                                                                                                                                                   APPLICANT: Jardieu, Paula M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ ID NO: 56:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVPFYG 11
                                                                                                                                                    CITY: South San F: STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 11 amino acids
TYPE: Amino Acid
TOPOLOGY: <Unknown>
                                                                                                                                                                                             ADDRESSEE: Genentech, Inc
STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: California
                                                                                                                                   COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: South San
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                                                                                                                                                                                                                                                                                            Presta, Leonard G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30.1%;
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Pred. No. 54;
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RESULT 18
US-10-665-658-12
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Publication No. US20050276801A1
GENERAL INFORMATION:
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Best Local
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INFORMATION FOR SEQ ID NO: 58:
SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
TYPE: Amino Acid
                                                                                                                                                                                              COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/665,658
FILING DATE: 19-Sep-2003
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Tan, Lee K.
REGISTRATION NUMBER: 39,447
REFERENCE/DOCKET NUMBER: P1014R1C1D1C1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-4462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Presta, Leonard G.
TITLE OF INVENTION: Humanized Anti-CD11a Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
    ATTORNEY/AGENT
                                                                                                                                                                                   PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 71
CORRESPONDENCE ADDRESS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Jardieu, Paula M.
Presta, Leonard C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
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                  OR APPLICATION DATA:
APPLICATION NUMBER: 60/031971
FILING DATE: 27-NOV-1996
APPLICATION NUMBER: 08/974899
FILING DATE: 20-NOV-1997
APPLICATION NUMBER: 09/420745
FILING DATE: 20-OCT-1999
APPLICATION NUMBER: 09/975798
FILING DATE: 28-FEB-2001
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FILING DATE: 20-NOV-1997
APPLICATION NUMBER: 09/220745
FILING DATE: 20-OCT-1999
APPLICATION NUMBER: 09/975798
FILING DATE: 28-FEB-2001
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STATE: California
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INFORMATION:
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                                                                                                                                           ORGANISM: Homo sapiens
US-11-054-515-2893
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                                                                                                                                                                                                              SEQ ID NO 2893
                                                                        Matches
                                                                                                       Query Match
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Best Local (
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                                                                                         Best
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CURRENT APPLICATION NUMBER: US/11/054,515
CURRENT FILING DATE: 2005-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/580,347
PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
                                                                                                                                                                                                                              Remaining Prior Application data removed - See File Wrapper or PALM. NUMBER OF SEQ ID NOS: 3247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/543,296 PRIOR FILING DATE: 2004-02-11
                                                                                                                                                                              LENGTH: 16
TYPE: PRT
                                                                                                                                                                                                                                                                 PRIOR FILING DATE: 2000-10-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 650/952-9881 INFORMATION FOR SEQ ID NO: 12:
                                                                                       Local
                                                                                                                                                                                                                                                                                                     FILING DATE: 2001-03-21
APPLICATION NUMBER: 60/
FILING DATE: 2001-03-16
                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/880,748
FILING DATE: 2001-06-15
APPLICATION NUMBER: 60/293,499
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FILING DATE: 2001-11-16
                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/240,816
                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/277,379
                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 2001-05-25
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TELEPHONE: 650/225-4462
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                                   3 LVMGVPFYG 11
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Similarity 66.7%;
4; Conservative
                                                                                     Similarity
ILTGVYYYG 13
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REFERENCE/DOCKET NUMBER: P1014R1C1D1C1
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                                                                      Conservative
                                                                                     30.1%;
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                                                                                     Score 25;
Pred. No.

    Mismatches

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Pred. No. 60;
                                                                      Mismatches
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                                                                                                       Length 16;
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; Sequence 9, Application US/10431638 ; Publication No. US20060003939A1

RESULT 20 US-10-431-638-9

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RESULT 22
US-10-859-643-597
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US-10-431-638-10
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APPLICANT: Steller, Hermann
TITLE OF INVENTION: PEPTIDES AND METHODS FOR CELL DEATH REGULATION
FILE REFERENCE: P-5004-US
CURRENT APPLICATION NUMBER: US/10/431,638
CURRENT FILING DATE: 2003-05-08
NUMBER OF SEQ ID NOS: 60
SOFTWARE: Patentin version 3.3
SEQ ID NO 10
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SEQ ID NO 9
LENGTH: 7
TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Challita-Eid, Pia M.
APPLICANT: Raitano, Arthur B.
APPLICANT: Faris, Mary
APPLICANT: Hubert, Rene S.
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Publication No. US20060002993A1
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  APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: Nucleic Acid and Corresponding Protein
TITLE OF INVENTION: Entitled 161P2F10B Useful in Treatment (
TITLE OF INVENTION: Cancer
FILE REFERENCE: 511582006203
CURRENT APPLICATION NUMBER: US/10/859,643
CURRENT FILING DATE: 2004-06-02
PRIOR APPLICATION NUMBER: US 10/005,480
PRIOR PILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 765
NUMBER OF SEQ ID NOS: 765
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APPLICANT: Steller, Hermann
TITLE OF INVENTION: EXPTIDES AND METHODS I
FILE REFERENCE: P-5004-US
CURRENT APPLICATION NUMBER: US/10/431,638
CURRENT FILLING DATE: 2003-05-08
NUMBER OF SEQ ID NOS: 60
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TYPE: PRT
ORGANISM: Drosophila melanogaster
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FastSEQ for Windows Version 4.0
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                                                                                                                                                                                                                  Morrison, Karen Jane Meyrick
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100.0%; Pred. No. 5.8e+04;
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                                                                                                                                                          Detection
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; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-859-643-597
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US-10-859-643-685
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APPLICANT: Challita-Eid, Pia M.
APPLICANT: Raitano, Arthur B.
APPLICANT: Faris, Mary
APPLICANT: Hubert, Rene S.
APPLICANT: Morrison, Karen Jan
APPLICANT: Morrison, Karen Jan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 685, Applic Publication No. US20 GENERAL INFORMATION:
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APPLICANT: Jakobovits, Aya
APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: Nucleic Acid and Corresponding Protein
TITLE OF INVENTION: Entitled 161P2F10B Useful in Treatment and Detection.
TITLE OF INVENTION: Cancer
FILE REFERENCE: 511582006203
CURRENT APPLICATION NUMBER: US/10/859,643
CURRENT FILING DATE: 2004-06-02
PRIOR FILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 765
SOFTWARE: FastSEQ for Windows Version 4.0
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Best Local Similarity
           APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 161P2F10B
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF CANCER
FILE REFERENCE: 511582006205
CURRENT APPLICATION NUMBER: US/11/097,864
CURRENT FILING DATE: 2005-04-01
PRIOR APPLICATION NUMBER: US 10/062,109
PRIOR APPLICATION NUMBER: US 10/062,109
PRIOR FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: US 10/005,480
PRIOR APPLICATION DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 765
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SOFTWARE: FastSEQ for Windows Version 4.0
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ORGANISM: Homo Sapien
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Morrison, Karen Jane Meyrick
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; Pred. No. 5.8e+04;
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Pred. No. 5.8e+04;
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CURRENT APPLICATION NUMBER: US/11/097,864
CURRENT FILING DATE: 2005-04-01
PRIOR APPLICATION NUMBER: US 10/062,109
PRIOR FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: US 10/005,480
PRIOR FILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 765
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 685
LENGTH: 9
TYPE: PRT
ORGANISM: Homo Sapien
US-11-097-864-685
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; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo Sapien
US-11-097-864-597
Search completed: January 26, 2006, 08:39:07 Job time : 4.22414 secs
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US-11-097-864-685
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APPLICANT: Raiteno, Arthur B.
APPLICANT: Faris, Mary
APPLICANT: Hubert, Rene S.
APPLICANT: Morrison, Karen January
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APPLICANT: Hubert, Rene S.
APPLICANT: Morrison, Karen Jane Meyrick
APPLICANT: Jakobovits, Aya
APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 161P2F10B
TITLE OF INVENTION: USCRIC ACID AND CORRESPONDING PROTEIN NAMED 161P2F10B
TILE OF INVENTION: USCRIC ACID AND DETECTION OF CANCER
FILE REFERENCE: 511582006205
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Q9X9H9 MOUSE
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Q8AXQ7_XENLA
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Q6LD23_MOUSE
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Q8AXQ7_XENLA
Q9XXQ0 HUMAN
Q7TSR9_MOUSE
Q7M217 VICFA
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Q7auj5 acine
P20016 thunn
Q9880 pinus
P84215 bombi
Q15632 homo
Q98818 brass
Q4x1t5 plasm
Q61623 mus m
Q7m1u3 oryza
Q782j9 neuro
Q8axq7 xenop
Q9bxq0 homo
Q7tsr9 mus m
Q7m1u3 rhodo
Q7tsr9 mus m
Q7m27 vicia
Q61614 rhodo
Q8k3k5 mus m
P82799 spina
Q9twn3 theil
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P8196 solan
P82658 arabi
Q7rzz1 neuro
Q9rfz1 mycop
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OC Eukaryota; Met
OC Mammalia; Euch
OC Mammalia; Euch
OC NCBI_TaxID=960
RN [1]
CO MACHIEDTIDE SEC
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Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata
Eukaryota; Eutheria; Euarchontoglires;
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Hall N., Karras M., Raine J.D., Carlton J.M., Kooij T.W.A.,
Hall N., Karras M., Raine J.D., Carlton J.M., Christophides G.K.,
Berriman M., Florens L., Janssen C.S., Pain A., Churcher C.,
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,
Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kafatos F.C.,
Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.;
"A comprehensive survey of the Plasmodium life cycle by genomic,
transcriptomic, and proteomic analyses.";
Science 307:82-86(2005).
-i- CAUTION: The sequence shown here is derived from an
EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q4YW11_PLABE PRELIMINARY; PRT; 21 AA. Q4YW11; 13-SEP-2005 (TrEMBLrel. 31, Created) 13-SEP-2005 (TrEMBLrel. 31, Last sequence update) 13-SEP-2005 (TrEMBLrel. 31, Last annotation update) 4-3-SEP-2005 (TrEMBLrel. 31, Last annotation update) 1-3-SEP-2005 (TrEMBLRel. 31, Created) 1-3-SEP-2005 (T
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01-MAR-2001 (TrEMBLrel. 16, Last
Mutant Sos isoform 1 (Fragment).
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Oncogene 12:2291-2300(1996).
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Pred. No. 2.5e-
4; Mismatches
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Pred. No. 1.3e+03;
3; Mismatches 2
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01-FEB-1991 (Rel. 17, Last sequence t
10-MAY-2005 (Rel. 47, Last annotation
NAD-specific glutamate dehydrogenase
(Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DHE2_THUTH P20016;
TISSUE=Liver;

MEDLINE=76253947; PubMed=182270; DOI=10.1016/0005-2744(76)90156-X;

Veronese F.M., Bevilacqua R., Boccu E., Brown D.M.;

"Purification, characteristics and sequence of a peptide containing essential lysine residue.";

essential lysine residue.";

Biochim. Biophys. Acta 445:1-13(1976).

-i- CATALYTIC ACTIVITY: L-glutamate + H(2)0 + NAD(+) = 2-oxoglutar.
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SEQUENCE
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Bacteria; Proteobacteria; Gam
Moraxellaceae; Acinetobacter.
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                        Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; E
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Percifox
Scombridae; Thunnus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (MAY-2002) to the EMBL; AJ486856; CAD31077.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     transposons in the natural environment: study of adjacent DNA sequences."; Microbiology 150:979-992(2004).
                                                                                                                                                                                                                                                                                                                                        Thunnus thynnus (Bluefin tuna)
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-; Genomic_DNA.
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(EC 1.4.1.2)
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"Seasonal variation of western white profeins.";
Plant Cell Physiol. 37:189-100
                                                                                                                  P84215;
01-FEB-2005 (Rel. dol. fEB-2005 (Rel. dol. dol. fEB-2005 (Rel. dol. dol. fryptophyllin-13.
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                                                          Bombina variegata (Yellow-bellied toad).
Eukaryota; Metazoa; Chordata; Craniata;
Amphibia; Batrachia; Anura; Archeobatrac
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Ekramoddoullah A.K.,
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NCBI_TaxID=3345;
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InterPro; IPR006097; GLFV_dehydrog_N.
Pf4m; PF02812; ELFV dehydrog N; 1.
PROSITE; PS00074; GLFV DEHYDROGENASE; PARTIAL.
Direct protein sequencing; NAD; Oxidoreductase.
ACT_SITE 12 12
  PROTEIN
                                  NCBI_TaxID=8348;
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-!- SIMILARITY: Belongs
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FUNCTION,
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SUBCELLULAR LOCATION,
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TISSUE SPECIFICITY
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SEQUENCE
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Zutter M., Hockett R.D., Roberts C.W.,
Morton C.C., Deaven L.L., Crist W.M., C
"The t (10;14) (q24;q11) of T-cell acute
juxtaposes the delta T-cell receptor wi
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PubMed=15134346; DOI=10.1515/BC.2004.027;
Marenah L., Flatt P.R., Orr D.F., McClean
Abdel-Wahab Y.H.;
                                                                                                                                                                                                  EMBL; M33602; AAA66450.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human).

Homo sapiens (Human).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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Q15632;
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SEQUENCE 14 AA; 1651 MW;
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                                                             Local
                                                                                 Match
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GO:0005179; F:hormone activity; TAS.
GO:0006572; P:defense response; TAS.
GO:0050796; P:regulation of insulin secretion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98
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Pred. No.
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ute lymphoblastic
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Q9AUA1;
01-JUN-2001 ('01-JUN-2001 ('
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
Chalcone synthase (Fragment).
Chalcone synthase (Fragment).
Arabis pauciflora.
Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eueurosids II, Brassicales; Brassicaceae; Arabis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROTEIN SEQUENCE.

MEDLINE-95218603; PubMed=7766044; DOI=10.1007/BF00202596;

Falk A., Taipalensuu J., Ek B., Lenman M., Rask L.;

Planta 195:387-395(1995).

InterPro; IPR001229; Jacalin_lectin.
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Q9S8H8;
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Brassica napus (Rape).

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;

eurosids II; Brassicales; Brassicaceae; Brassica.
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-UN-2002 (TrEMBLrel. 21, Last annotation update)
Myrosinase-binding protein 50 (Fragment).
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SEQUENCE 16 AA; 1763 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=21441848; PubMed=11557794;
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NCE 20 AA; 2101 MW;
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to the EMBL/GenBank/DDBJ databases
933.1; -; Genomic_DNA.
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eudicots; rosids;
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Best Local
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MEDLINB=95047447; PubMed=7958966; DOI=10.1016/0378-1119(94)90710-2;
Lutfalla G., Uze G.;
"Structure of the murine interferon alpha/beta receptor-encoding gene:
                                                                                                                                                                                                                                                                                                                                                         05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence up
05-JUL-2004 (TrEMBLrel. 27, Last annotation
Interferon alpha/beta receptor (Fragment).
Name=Ifnarl; Synonyms=IFNAR;
                                                                                                                                                                                                                                                                                                                                                                                                                          Q6LD23_MOUSE
Q6LD23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NON TER
SEQUENCE
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Hall N., Karras M., Raine J.D., Carlton J.M., Kooij T.W.A.,
Hall N., Karras M., Raine J.D., Carlton J.M., Christophides G.
Berriman M., Florens L., Janssen C.S., Pain A., Christophides G.
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,
Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kafatos
Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.;
"A comprehensive survey of the Plasmodium life cycle by genomic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence up
13-SEP-2005 (TrEMBLrel. 31, Last annotation
13-SEP-2005 (TrEMBLrel. 31, Last annotation
Hypothetical protein (Fragment).
ORFNames=PC109111.00.0;
                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurogna: Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plasmodium chabaudi.
Eukaryota; Alveolata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        transcriptomic, and proteomic analyses."; Science 307:82-86(2005).
                                                                              SEQUENCE
                                                                                                                                                            EMBL; U06237; AAA65003.1; -; MGI; MGI:107658; Ifnar1.
                                                                                                                                                                                                                                                                                         NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                               Mus musculus (Mouse)
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                                                                                                                                GO:0005615; C:extracellular space; TAS GO:0016021; C:integral to membrane; TA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   preliminary data.
                                                                                                                                                                                       148:343-346(1994).
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                                                                              C5BB59D76059D76A CRC64;
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Jaffe D., Fitzhugh W., Ma L.-J., Smirnov S., Purcell S., Rehman B.,
Relkins T., Engels R., Wang S., Nielsen C.B., Butler J., Endrizzi M.,
Qui D., Ianakiev P., Pedersen D., Nelson M., Washburne M.,
Selitrenhikoff C.P., Kinsey J.A., Braun E.L., Zelter A., Schulte U.,
Kothe G.O., Jedd G., Mewes W., Staben C., Marcotte E., Greenberg D.,
Kothe G.O., Jedd G., Mewes W., Staben C., Marcotte E., Greenberg D.,
ROY A., Foley K., Naylor J., Thomann N., Barrett R., Gnerre S.,
RA ROY A., Foley K., Naylor J., Thomann N., Barrett R., Cherre S.,
Kamal M., Kamvysselis M., Mauceli E., Bielke C., Rudd S., Frishman D.,
Kawal M., Kamvysselis M., Mauceli E., Bielke C., Rudd S., Frishman D.,
Kawal M., Kamvysselis M., Mauceli E., Bielke C., Rudd S., Frishman D.,
Kaystofova S., Rasmussen C., Metzenberg R.L., Perkins D.D., Kroken S.,
Cogoni C., Macino G., Catcheside D., Li W., Pratt R.J., Osmani S.A.,
Cogoni C., Macino G., Catcheside D., Li W., Pratt R.J., Osmani S.A.,
DeSouza C.C., Glass L., Orbach M.J., Berglund J., Voelker R.,
Varden O., Plamann M., Seiler S., Dunlap J., Radford A., Aramayo R.,
Varden O., Plamann M.S., Lander E.S., Nusbaum C., Birren B.,
The Genome Sequence of the Filamentous Fungus Neurospora crassa.";
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01-MAR-2004 (TrEMBLrel. 26, Lat
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Unidentified 5.4/35K protein (I
0ryza sativa (Rice).
Eukaryota, Viridiplantae, Strep
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Q7S2J9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=5141;
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                                                                       Nature 0:0-0(2003).
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"A rice protein library; a data-file of
two-dimensional electrophoresis.";
Theor. Appl. Genet. 86:935-942(1993).
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Ehrhartoideae; Oryzeae; Oryza
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Name=NCU04977.1;
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ORYSA
     preliminary data
; AABX01000422; |
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nilarity 80.0%;
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     EAA29651.1;
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s; Sordariaceae;
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a; Poales; Poaceae;
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TISSUE-Brain;
Citron B.A., Santa Cruz K.S., Davies P.J.
"Intron-exon swapping of tranglutaminase
aggregation in Alzheimer's disease.";
J. Biol. Chem. 0:0-0(2001).
EMBL; AF311286; AAK15272.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-2259335; PubMed-12707349; Endo Y., Nonaka M., Saiga H., Kakinuma Y., Ma Matsushita M., Fujita T.; "Origin of mannose-binding lectin-associated and MASP-3 involved in the lectin complement the invertebrate, amphioxus."; J. Immunol. 170:4701-4707(2003).
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01-JUN-2001
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01-MAR-2003 (TrEMBLrel. 23,
01-OCT-2003 (TrEMBLrel. 25,
                                                                                                      Eukaryota;
                                                                                                            Homo sapiens (Human)
                                                                                                                        Name=TGM2;
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                                                       NUCLEOTIDE SEQUENCE
                                                                        NCBI_TaxID=9606
                                                                                                                                Tissue transglutaminase
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                                                                                                                                                                                                                                                                                                                                                              EMBL;
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GO:0008233; F:peptidase activity;
GO:0005529; F:sugar binding; IEA.
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                                                                                       Chordata; Craniata; Vertebrata; Euteleo:
Euarchontoglires; Primates; Catarrhini;
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tivity; TEA.
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GO; GO:0005525; F
GO; GO:0003924; F
GO; GO:0006916; P;
GO; GO:0019933; P;
GO; GO:0019221; P;
GO; GO:0007186; P;
GO; GO:0018276; P;
GO; GO:0012501; P;
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Q7M2G7;
Q1MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
NADH2 dehydrogenase (EC 1.0
Vicia faba (Broad bean).
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Q7TSR9 N
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Mammalia; Eutheria; Euarchontoglires;
Muridae; Murinae; Mus.
                    Eukaryota; Viridiplantae; Strep
Spermatophyta; Magnoliophyta; e
eurosids I; Fabales; Fabaceae;
NCBI_TaxID=3906;
                                                                                                             Mitochondrion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=C57BL/6;
Fujino T., Lee W.-C.A.,
"Regulation of cpg15 by
Plasticity.";
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BL; AY150584; AAN84528.1; -; Genomic_DNA
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GO:0005524; F:ATP binding; TAS.
GO:0005525; F:CTP binding; TAS.
GO:0005525; F:CTP binding; TAS.
GO:0003924; F:GTPase activity; TAS.
GO:0003810; F:protein-glutamine gamma-glutamyltransferase.
GO:0001921; F:anti-appytosis; TAS.
GO:0019933; P:CAMP-mediated signaling; TAS.
GO:0019931; P:cytokine and chemokine mediated signaling p.
GO:0007166; P:Gprotein coupled receptor protein signalin.
GO:0018276; P:Isopeptide cross-linking via N6-glycyl-L-ly.
GO:0012501; P:programmed cell death; TAS.
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(TrEMBLrel. 25, Last sequence update)
(TrEMBLrel. 25, Last annotation update)
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Signaling
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26, Last annotation updat
1.6.99.3) 14K chain (Frag
                                         Streptophyta; Embryophyta; Tracheophyta; yta; eudicotyledons; core eudicots; rosids; ceae; Papilionoideae; Vicieae; Vicia.
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Pred. No. 9e+03;
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RESULT 19
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DT 01-OCT-2002 (TrEMBLrel 22,
DT 01-OCT-2002 (TrEMBLrel 22,
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DE Arginase I (Fragment).

OS Mus musculus (Mouse).

OS Mus musculus (Mouse).

OC Eukaryota, Metazoa; (Chordat.
OC Muridae; Murinae; Mus.
OX NCBL_TaxID=10090;
RN (1)
RN NUCLEOTIDE SEQUENCE.
RC STRAIN=129/SvJ;
RX PubMed=1929/SvJ;
RX PubMed=1929/SvJ;
RX PubMed=1929/SvJ;
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QGLDN4_RHOCA E
QGLDN4;
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05-JUL-2004 (TrEMBLrel. 27, Last sequence up
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NON TER
SEQUENCE
                                                                                                                                                  Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Euarchonto
Muridae; Murinae; Mus.
                                                                                                                                                                                                                                 01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22, Arginase I (Fragment).
Mus musculus (Mouse).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R.capsulata nifHDK operon, (Fragment). Rhodobacter capsulatus (Rhodopseudomonas capsulata). Bacteria; Proteobacteria; Alphaproteobacteria; Rhodobacterales; Rhodobacteraceae; Rhodobacter.
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NUCLEOTIDE SEQUENCE.
STRAIN=129/SvJ;
PubMed=15922518; DOI=10.1016/j.gene.2005.04.004;
Gray M.J., Poljakovic M., Kepka-Lenhart D., Morr:
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PIR; PQ0790; PQ0790.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
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Pred. No. 1
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OM4VA_VIBAL
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STRAIN-NCIMB 1903T;

Onji M., Hirabayashi J., Suzuki S.;

Onji M., Hirabayashi J., Suzuki S.;

Onji M., Hirabayashi J., Suzuki S.;

"Characterization of major outer membrane proteins alginolyticus and the stability against proteases."

alginolyticus and the stability against proteases."

Microbes Environ. 0:0-0(2002):

-!- SUBUNIT: Homotrimer (By similarity).

-!- SUBUNIT: Homotrimer (By similarity).
                                                                                            P82799;
16-OCT-2001
Spermatophyta; Magnoliophyta; e CaryophyllaLes; Amaranthaceae; NCBI TaxID=3562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Induction of arginase I transcription by IL-4 requires a DNA response element for STAT6 and C/EBPbeta."; Gene 353:98-106(2005).
EMBL; AY074884; AAL79623.1; -; Genomic_DNA.
NON TER
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19
                                                                      16-OCT-2001 (Rel.
16-OCT-2001 (Rel.
05-JUL-2004 (Rel.
                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                Direct protein sequencing; Ion transport; Porin; Transmembrane; Transport.
NON_TER 20 20
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                                                                                                                                                                                                                                                                                                                                                                   -!- SUBUNIT: Homotrimer (By similarity).
-!- SUBCELLULAR LOCATION: Outer membrane.
-!- SIMILARITY: Belongs to the Gram-negative porin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Outer membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM4VA_VIBAL
P83149;
                                        Spinacia oleracea (Spinach)
Eukaryota, Viridiplantae, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vibrio alginolyticus.
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28-FEB-2003 (Rel. 41, Last seg
10-MAY-2005 (Rel. 47, Last ann
                                                               Thylakoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=663;
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Vibrionaceae; Vibrio.
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el. 47, Last annotation updat
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40, Last sequence update)
44, Last annotation update)
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yta; eudicotyledons;
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Pred. No. 1.2e
1; Mismatches
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eudicotyledons;
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RESULT 23
P81896_SOLTU
ID P81896_SOLTU
AC P81896;
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Q9TWN3_THESE
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01-JUN-2000
01-JUN-2003
                                                                                     Eukaryota; Viridiplantae; Streptophyta; Embry
Spermatophyta; Magnoliophyta; eudicotyledons;
lamiids; Solanales; Solanaceae; Solanum.
                                                                                                                              Dihydrolipoamide succinyltransferase dehydrogenase complex (EC 2.3.1.61) (Solanum tuberosum (Potato)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Baek B.K., Kim B.S., Rhim B.M., Lee H.I., Park Y.H., Kakoma I.; "Immunogenicity and protective efficacy of solubilized merozoite-enriched Theileria sergenti immunogens. III. Characterization of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
 MEDLINE=99441232;
Millar A.H., Hill
                                                                                                                                                                                                                                                                                                                                                                                                                      immunodominant peptides.";
Submitted (MAR-1995) to the EMBL/GenBank/DDBJ
SEQUENCE 20 AA; 2270 MW; 97F9C630713B8284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=5877;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Alveolata;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kieselbach T., Pettersson U., Bystedt M., Schroeder W.P.;
Submitted (JUL-2000) to Swiss-Prot.
-!- SUBCELLULAR LOCATION: Chloroplast; within the thylakoid
                                             PROTEIN SEQUENCE
                                                                      NCBI_TaxID=4113;
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PubMed=10510296;
S.A., Leaver C.J
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No. 1.2e+04
                DOI=10.1042/0264-6021:3430327
                                                                                                                                             (E2) (OGDC-E2) (Fragment).
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dons; core e
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                                                                                                                Tracheophyta;
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RESULT 24
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16-OCT-2001 (Rel. 40, Last sequence update)
15-OCT-2001 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
Thylakoid lumenal 19 kDa protein (P19) (Fragment).
Arabidopsis thaliana (Mouse-ear cress).
Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicotyledons;
rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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-!- SUBCELLULAR LOCATION: MITOCHONDRIAL.
-!- CAUTION: X IN THE SEQUENCE MIGHT BE CYS RESIDUE.
-!- CAUTION: X IN THE SEQUENCE MIGHT BE CYS RESIDUE.
-!- SIMILARITY: TO OTHER SPECIES E2 COMPONENT.
G0; G0:0005739; C:mitochondrion; IEA.
G0; G0:0004149; F:dihydrolipoyllysine-residue succinyltransfe.
G0; G0:0004149; F:dihydrolipoyllysine-residue succinyltransfe.
G0; G0:0016740; F:transferase activity; IEA.
G0; G0:0016740; F:transferase activity; IEA.
G0; G0:0016740; F:transferase activity; TEA.
G0; G0:0016740; F:transferase activity; T
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Biochem. J. 343:327-334(1999).
-!- FUNCTION: THE 2-OXOGLUTARATE DEHYDROGENASE
                                                                                                                                                                                                                                                                                                                                           Chloroplast;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=cv. Columbia;
Kieselbach T., Bystedt M., Schroeder W.P.;
Submitted (JUL-2000) to Swiss-Prot.
-!- SUBCELLULAR LOCATION: Chloroplast; within the thylakoid lumen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARATH
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CATALYTIC ACTIVITY: SUCCINYL-COA + DIHYDROLIPOAMIDE = COA + S-CHOCTAYLTRANSFERASE (E3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBUNIT:
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Pred. No.
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Search completed: January Job time : 53.5603 secs

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RESULT 25
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RA KOTHE G.O., MACINO G., CACUE
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CC -1- CAUTION: The sequence shown here is derived from an EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is completed the sequence shown here is derived from an Embly Genome shotgun (WGS) entry which is
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Best Local
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Eukaryota; Fungi; Ascomycota; Pezizomycotina;
Sordariomycetidae; Sordariales; Sordariaceae;
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Purcell S., Rehman ...
J., Endrizzi M.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-APR-1998;
13-MAY-1998;
02-SEP-1998;
                                                                                                                                                                                                                                                                                                                                   -map) composition. The HMW-map composition was isolated from a D. faring homogenate by gel filtration, with each fraction being analysed for the presence of proteins that bound to IgE present in mite-allergic dog antisera. The HMW-map composition comprises mapA (a 109 kD protein) and
                                                                                                                                 Sequence 19
                                                                                                                                                                                                                                                                                                                                                                                                    Dermatophagoides farinae high molecular weight mite allergen
                                                                                                                                                                                                                                                                                                                                                                                                                   Sequences AAY52510-Y52522 represent proteolytic fragments of
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 3; Page 70; 154pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel high molecular weight Dermatophagoides nucleic acid polypeptides used to modify an animals' hypersensitivy to mite allergens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New mite allergenic protein isolated from Dermatophagoides, designa
Der HMW-map protein, useful as a vaccine for treating mite allergy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 12; Page 71; 161pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-351888/38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; ilarity 100.0%; Conservative 0;
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                                                        (first entry)
                                                                                                                                                                             peptide; 20
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Pred. No. 4e-11;
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House dust mite allergen protein (map) A/B fragment map(2).

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RESULT 4
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AC AAU9
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DT 15---
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DE Der
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W Der
KW Der
KW Der
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Matches 19
                                                                                                                                                                                                                                                                                                                               antisera. The HMW-map composition comprises mapA (a 109 kD protein) and mapB (98 kD). Mite allergenic proteins and peptides, and nucleic acids encoding them, may be used in therapeutic compositions to modify an animal's hypersensitivity reaction to mite allergens. Animals that may be treated include mammals and birds, especially felines, canines, equines, humans, other pets, and work or domestic animals. The proteins or fragments may also be used to diagnose allergies via a skin test. The proteins and peptides can also be used to raise antibodies, which have a variety of potential uses. For example, they can be used as vaccines to passively immunise animals against dust mite hypersensitivity, as positive controls in test kits and as tools to recover desired dust mite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequences AAY52510-Y52522 represent proteolytic fragments of Dermatophagoides farinae high molecular weight mite allergen map composition. The HMW-map composition was isolated from
Dermatophagoides farinae
                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                             -map) composition. The HMW-map composition was isolated from a D. taring homogenate by gel filtration, with each fraction being analysed for the presence of proteins that bound to IgE present in mite-allergic dog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 3; Page 69; 154pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel high molecular weight Dermatophagoides nucleic acid polypeptides used to modify an animals' hypersensitivy to mite allergens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mite allergen protein; map; high molecular weight; HMW-map; allergy; house dust mite; IgE; immunoglobulin E; allergen; mapA; mapB; hypersensitivity reaction; therapy; treatment; diagnosis; human; feline; canine; veterinary; antibody; vaccine; immunisation.
                                             Der HMW-map;
                                                                   Der HMW-map polypeptide #3
                                                                                                                                         AAU96316 standard; peptide; 20
                                                                                                                                                                                                                                                                                                                       allergens from a mixture of proteins
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13-MAY-1998;
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                      immunocomplex formation.
                                                                                            15-JUL-2002
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                                  allergenic protein;
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l Similarity 100.0%;
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                                              American house
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98US-0085295P.
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                                ıse dust mite; a
immunoglobulin
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                                                                                                                                                                                                                                                 Score 109; DB 3;
Pred. No. 4.2e-11;
; Mismatches 0;
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                                  mite; antiallergic; mite; I
lobulin E; hypersensitivity;
                                                                                                                                                                                                                                                                      Length 20
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                                            IgE;
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RESULT 5
AAM18898
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Best Local S
Matches 19
04-FEB-2000; 2
26-MAY-2000; 2
30-JUN-2000; 2
03-AUG-2000; 2
21-SEP-2000; 2
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                                                                                                                                                                                                                                                                                                     Homo sapiens
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19; Conserv
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  2000US-0180312P.
2000US-0207456P.
2000US-00608408.
2000US-00632366.
2000US-0234687P.
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Pred. No. 4.2e-11;
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                                                                                                                                                                                                                                                                                                                                                                                 expression; cervical epithelial cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                for measuring cervical gene expression
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RESULT 6
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                           gene
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04-OCT-2000;
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                             Human genome-derived single exon nucleic acid probes useful for analyzing gene expression in human fetal liver.
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26-MAY-2000;
30-JUN-2000;
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21-SEP-2000;
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                                           The present invention relates to single exon nucleic acid probes (SENP: see AAI31315-AAI57546). The present sequence is a peptide encoded by one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying gene expression in samples derived from human placenta. The probes are useful for antenatal diagnosis of human genetic disorders
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                                                                                                                                                                                                                                                                                                    probes useful for analyzing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diagnosis;
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Best Local Similarity

34.4**%**; 42.9**%**;

Score Pred.

37.5; I

DB

4

Length

20

Query Match

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                                                                                                                   The present invention relates to single exon nucleic acid probes for measuring human gene expression in a sample derived from human heart (see ABA21335-ABA41305). The present sequence is a protein encoded by one such probe. The probes may be used for predicting, measuring and displaying gene expression in samples derived from the human heart via microarrays. By measuring gene expression, the probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascular system e.g. cardiovascular disease. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                            04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                         Claim 15;
                                                                                                                                                                                                                                                                                       Single
                                                                                                                                                                                                                                                                                                                                                                                                                   03-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-JAN-2001; 2001WO-US000666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              congenital heart disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; gene expression; heart; microarray; vascular system; cardiovascular disease; hypertension; cardiac arrhythmia;
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                                                                                                          ftp.wipo.int/pub/published_pct_sequences
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                    IPHPTNIHKYLVCE 15
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LPHP-HSHTHLLCQ 20
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2000US-0207456P.
2000US-00608408.
2000US-00632366.
2000US-0234687P.
2000US-0236359P.
                                         Conservative
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Pred. No. 58;
5; Mismatches
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RESULT

05-NOV-2001

(first

Human brain expressed single

WO200157275-A2

Alzheimer's disease;

Human; brain expressed exon; gene expression analysis; probe; microarray;

exon probe encoded protein SEQ ID

NO: 30752

multiple sclerosis;

schizophrenia; epilepsy;

cancer

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IID AAM7
XX AAM7
XX AAM7
XX AAM7
XX Huma
XX Huma
XX Huma
XX WO20
XX WO20
XX WO20
XX WO20
PN WO20
XX WO20
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PF 30-:
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                                                                                                                                                                                                                                                                                       AAM58647 standard;
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26-MAY-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human genome-derived single exon nucleic acid
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03-AUG-2000;
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2000US-00632366.
2000US-0234687P.
2000US-0236359P.
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2000US-0207456P.
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RESULT 11
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03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
04-OCT-2000;
                                                                     03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
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26-MAY-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         probes which are derived from genomic sequences expressed in the human brain. They can be used to measure gene expression in brain cell samples, which may enable the diagnosis and improved treatment of nervous system diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia, epilepsy and cancers. The present sequence is a protein encoded by one of the probes of the invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human liver peptide,
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      MOLECULAR DYNAMICS INC
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                                           7 2000US - 0180312P.

2000US - 0207456P.

2000US - 0060840B.

2000US - 00632366.

2000US - 0234687P.

2000US - 0236359P.

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2000US-0207456P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                                                                                                                                        cirrhosis; hyperlipoproteinaemia; hyperlipidaemia;
rolaemia; coronary heart disease.
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Pred. No. 58;
5; Mismatches
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RESULT 12
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Best Local
                                                                      04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; single exon probe; asthma; lung cancer; COPD; ILD; chronic obstructive pulmonary disease; interstitial lung disease; familial idiopathic pulmonary fibrosis; neurofibromatosis; tuberous sclerosis; Gaucher's disease; Niemann-Pick disease; hermansky-pudlak syndrome; sarcoidosis; pulmonary haemosiderosis; pulmonary histiocytosis; lymphangioleiomyomtosis; Karagener syndrome; pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia; primary ciliary dyskinesis; pulmonary hypertension;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  stringency to a nucleic acid molecule expressed in the human adult liver.

(I) may be used for predicting, measuring and displaying gene expression in samples derived from human adult liver. The genes identified may be involved in genetic liver diseases such as cirrhosis, hyperlipoproteinaemia, hyperlipidaemia and hypercholesterolaemia which is associated with coronary heart disease. ABG47348-ABG5930 represent human liver single exon encoded peptides of the invention. Note: The sequence information for this patent does not appear in the printed specification but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
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liver, comprising one of 13109 defined nucleotide sequences given in
specification (or complements) fragments). The probe hybridises at hi
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(MOLE-)
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MOLECULAR DYNAMICS INC
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Pred. No. 58;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC probes. Also included are a microarray comprising the novel set of probes caid expressed in the human lung; measuring gene expression in a sample collection of detectably labeled nucleic acids derived from human lung; measuring gene expression in a sample collection of detectably labeled nucleic acids derived from human lung comprising (a) contacting the array with a collection of detectably labeled nucleic acids derived from human lung measuring the label detectably bound to each probe of the carray; identifying exons in a eukaryotic genome, comprising (a) algorithmically predicting at least one exon from genomic sequences of the eukaryote; and (b) detecting specific hybridisation of detectably comprising (a) identifying exons from genomic sequences of the aving a fragment identical to the predicted exon, the probe is included in the above mentioned microarray; assigning exons to a single exon probe, comprising (a) identifying exons from genomic sequence by the method above and (b) measuring the expression of each of the exons in several crisuses and/or cell types using hybridisation to a single exon of itseues and/or cell types using hybridisation to a single exon for expression of the exons in the exons in the exon where a common pattern of expression of the exons in the specification, or encoded by the comprising a probe with the exon, where a common pattern of the exons should be assigned to a single gene; a peptide comprising one comprising one comprising exons in the specification, or encoded by the comprision of the exons and/or cell types indicates that the exons expression of the exons expression of the probes are used for gene expression control to a single exon probe are used for gene expression of the exons expression of the probes are used for gene expression control to the state of the state of the probes are used for gene expression of the exons in the specification, but was obtained in electronic format the control of the printed specification, but was obtained in electronic format the contr
                                                                                                                                                                                                                                            RESULT 13
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target stain; phenol oxidising enzyme; redox reaction; detergent industry; paper and pulp industry; textile industry; food industry; laccase enzyme; textile; carotenoid stain; fabric;
                                                                                                                            18-DEC-2003
                                                                                                                                                                                                      ADC27861 standard; peptide; 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Spatially-addressable set of single exon nucleic acid probes, used to
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                                                                              targetting peptide Seq ID54
                                                                                                                                                                                                                                                                                                                                                                                                         34.4%;
42.9%;
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                                                                                                                                                                                                                                                                                                                                                                                        Score 37.5; D
Pred. No. 58;
5; Mismatches
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Query Match
                                                                                                                                                                                                                                             This invention relates to novel peptides which bind to a target stain. The invention comprises phenol oxidising enzyme-binding peptide complexes wherein the binding peptide is attached to the C-terminus of the phenol oxidising enzyme or is inserted or substituted into the phenol oxidising enzyme. Phenol oxidising enzymes function by catalysis of redox reactions and are used for a wide range of applications (detergent industry, paper and pulp industry, textile industry and food industry). The invention is useful for enhancing the binding of a laccase enzyme to a target stain on a textile, where the peptide binds to the stain and not the textile. This may be useful for bleaching a carotenoid stain on a fabric or surface. The invention is useful in skin cosmetics and in food as fruit ripening agents. The present sequence is that of a stain targetting peptide of the
                                                                                                                                                                      Sequence 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; SEQ ID NO 54; 50pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel binding peptide useful for enhancing the enzyme to a target stain, to target a stain on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-532545/50
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                                                                                                                                                                                                                              invention.
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                                                                                   Local
3 PHPTNI 8
                                                     Similarity 83...
5; Conservative
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Winetzky DS;
                                                                                                                                                                      AA;
                                                                                32.1%;
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                                                     Score 35; DB 7;
Pred. No. 2e+06;
1; Mismatches
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a textile, and in skin
                                                                                                             Length 7;
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                                                        Indels
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                Matches
PHPTNL 6
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02-JUN-2005
                                   ADY56230
                                                                     ADY56230 standard; peptide; 7 AA
(first entry)
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Enzyme engineering; surfactant; textile; phage display; cyclic Carotenoid-binding phage display cyclic 7-mer peptide, SEQ ID NO:54

03-SEP-2002; 2002US-00235043 17-MAR-2005 US2005058996-A1

Synthetic

03-SEP-2002; 2002US-00235043

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC display peptides (ANYS6178-ANYS6609); to carotenoid-binding peptides (CC which comprise a repeatable motif selected from PPP, SSP, SSK, SPT, PLP, CC SLH, SPL, TTT, NTS, APS, TPV or a motif shown in ADYS663-ADYS6631; and CC stachybotrys laccase such as ADYS6177 or variants thereof) covalently a CC Stachybotrys laccase such as ADYS6177 or variants thereof) covalently calso relates to polynucleotides encoding a peptides. The invention CC also relates to polynucleotides encoding a carotenoid-binding peptide, CC and expression vectors and host cells comprising a polynucleotide encoding a phenol-oxidizing enzyme/carotenoid-binding peptide, CC and expression vectors and host cells comprising a polynucleotide encoding a phenol-oxidizing enzyme/carotenoid-binding peptide complex. CC cridizing a phenol-oxidizing enzyme/carotenoid-binding peptide complex. CC cridizing enzyme for enhancing the selectivity of the enzyme to a target carotenoid stain on a textile or other surface, where the enzyme can then CC detergent or cleaning compositions for targeting or removing food stains (e.g., tomato or paprika) on fabrics, and can also be used in the textile cindustry applications (e.g., in skin cosmetics as skin tanners), in CC fibers. The enzyme/peptide complexes are additionally useful in CC diagnostic uses, such as in pharmaceutical applications e.g., to localize the presence of carotenoids in tissues. The present sequence represents a specifically claimed carotenoid-binding cyclic peptide isolated from a constant of the complexes are additions e.g., to localize the present sequence represents a specifically claimed carotenoid-binding cyclic peptide isolated from a constant of the complexes are additional e.g., to localize the present sequence represents a specifically claimed carotenoid-binding cyclic peptide isolated from a constant of the complexes are additional e.g., to localize the present sequence represents a constant of the complexes are additional e.g., to localize the present sequence represents and constant of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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Wang H,
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                                                                                  Unidentified
                                                                                                                        cancer; neoplasm
                                                                                                                                           cytostatic; vaccine; gene therapy; pharmaceutical; immunotherapy; tumor;
                                                                                                                                                                                   H3 or D3-acetylated tumor-associated peptide
                                                                                                                                                                                                                           20-OCT-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; SEQ ID NO 54; 107pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New peptides that bind to carotenoid compounds, useful as detergents for targeting or removing stains on textiles or fabrics, in personal care or food industry applications, or in various diagnostic applications.
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(WANG/)
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(BALD/)
(VGAS/)
(JANS/)
18-AUG-2005
                                        WO2005076009-A2
                                                                                                                                                                                                                                                                                                           AEC06055 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                invention relates to 432 cyclic or linear carotenoid-binding phage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             display library.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VAN GASTEL F J O
JANSSEN G G.
MURRAY C J.
WANG H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WINETZKY D S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WOLFGANG A. BALDWIN T M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A, Baldwin TM,
Winetzky DS;
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                                                                                                                                                                                                                                                                                                                                                                                                            PHPTNL 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                           peptide;
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83.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 35; DB
Pred. No. 2e+0
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 9;
2e+06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Murray
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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RESULT 16
AEC06029
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Best Local Similarity
Matches 5; Conser
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                                                                        28-JAN-2004;
06-MAR-2004;
                                                                                                                                                                                                                                                           cytostatic; vaccine; gene therapy; pharmaceutical; immunotherapy; tumor;
                                                                                                                                                                                                                                                                                           Tumor-associated peptide SEQ ID NO 12.
                                                                                                                                                                                                                                                                                                                          20-OCT-2005
                                                                                                                                                                                                                                                                                                                                                                                   AEC06029 standard; peptide; 10 AA.
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06-MAR-2004; 2004DE-10011503:
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                                                                                                                     28-JAN-2005; 2005WO-EP000873
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                                                                                                                                                                                                                Homo sapiens
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                                           (IMMA-) IMMATICS BIOTECHNOLOGIES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                        2004DE-10005273
2004DE-10011503
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Lemmel C,

Rammensee H;

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RESULT 17
AAM30771
ID AAM30
XX AAM30
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Best Local
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                                                                                                                                                                                                                            WPI; 1997-415352/38
                                                                                                                                                                                                                                                                                   Dowell BL,
Pettersson
                                                                                                                                                                                                                                                                                                                                                                                                                        06-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-FEB-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9729199-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prostate specific antigen; PSA; immunogenic; human glandular kallikrein; hK2; antigen; antibody; detection; diagnosis; prostate cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Prostate Specific Antigen (PSA) derived peptide ABT3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 10 AA;
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                                                                                                                                                                     Prostate Specific Antigen
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Pred. No. 70;
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AAW30769-84 are synthetic peptides derived antigen (PSA) sequence. These peptides are

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prostate specific to a highly

Claim 2;

Page 10; 42pp; English.

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The present sequence represents a prostate specific antigen (PSA) coppride. Monoclonal antibodies specific for PSA and hybridomas producing them have been developed. The antibodies: (a) bind to free PSA; (b) are monoclonal antibody 365 binding to amino acids 82-87 of free PSA (LKNRFL) or fragment, and (c) are monoclonal antibodies 10, 11, 16 or 22.2 and 15.2, 156 or 225 binding to amino acids 139-144 (EELFITP) and 55-60 (SLFHPB) respectively of free and bound PSA, or fragments The antibodies are useful to detect PSA. For detecting free PSA only, an immunoassay comprising a solid support with attached labelled monoclonal antibody specific for free PSA (especially (b)) and a PSA standard can be used. To detect both free and bound PSA, a second solid support with attached (differently labelled) monoclonal antibody binding free and bound PSA (especially selected from (c)) can be used either with, or in place of, the first solid support. The antibodies are useful in cancer screening, especially prostate and breast cancer. By obtaining total and free PSA values, their ratio can be used to separate prostatic cancer (PCa) from
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           identical or non-identical to the amino acid sequence of human glandular kallikrein (hK2). The peptides are used as antigens for the production of antibodies which are used to detect PSA in a test sample (claimed). This is useful for diagnosis of prostate cancer. The peptides enable the production of antisera necessary to determine the amount of total PSA, free PSA and PSA-ACT complex present in a sample and thus improve the ability of the clinician to distinguish, e.g., between BPH (benign prostatic hyperplasia) and prostatic cancer in a patient
                                                                                                                                                                                                                                                                                                                                  Example; Page 59; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-193789/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Heavner
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; prostate specific antigen; PSA; epitope; monoclonal antibody; detection; cancer; serine protease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human prostate specific antigen peptide SEQ ID NO:72
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CENZ ) CENTOCOR INC
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Pred. No. 1.1e
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them have been developed. The antibodies: (a) bind to free PSA; (b) are monoclonal antibody 365 binding to amino acids 82-87 of free PSA; (b) are 15.2, 156 or 225 binding to amino acids 82-87 of free PSA (LKNRFL) cor fragment, and (c) are monoclonal antibodies 10, 11, 16 or 22.2 and 15.2, 156 or 225 binding to amino acids 139-144 (EELPLIP) and 55-60 (SIFHPE) respectively of free and bound PSA, or fragments. The antibodies are useful to detect PSA. For detecting free PSA only, an immunoassay comprising a solid support with attached labelled monoclonal antibody specific for free PSA (especially (b)) and a PSA standard can be used. To detect both free and bound PSA, a second solid support with attached (differently labelled) monoclonal antibody binding free and bound PSA (especially selected from (c)) can be used either with, or in place of, the first solid support. The antibodies are useful in cancer screening, especially prostate and breast cancer. By obtaining total and free PSA values, their ratio can be used to separate prostatic cancer (PCa) from the support of the static cancer. By obtaining total and free PSA is also useful after radical prostatectomy, to predict disease persistence. The antibodies allow evaluation of PSA free/total ratio, enabling separation of PSA free/total ratio, enabling separation of PSA free/total ratio, enabling separation.
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antibodies of BPH and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            e.g. in screening ror process atic distinguish between benign prostatic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Monoclonal antibodies specific for prostate specific antigen - useful e.g. in screening for prostate or breast cancer and especially to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-193789/17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; prostate specific antigen; PSA; epitope; monoclonal antibody;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     present sequence represents a prostate specific antigen (PSA)
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PCa patients with PSA values 4-10
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No. 1.1e+02;
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ng/ml not previously
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Query Match Best Local Matches

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                     The invention relates to a composition comprising at least one peptide CC having an isolated, prepared epicope selected from any of the sequences CC from 30 lists given in the specification. Also disclosed is a method for CC inducing a cytotoxic T cell response against a pre-selected antigen in a CC patient expressing a specific MHC class I allele by contacting cytotoxic CT cells from the patient with the composition cited above. The CC composition comprises an epitope that is joined by an amino acid linker. CC The epitope is admixed or joined to a CTL or HTL epitope. The epitope is bound to an HLA molecule on the antigen-presenting cell, where when an A2 crestricted cytotoxic lymphocyte (CTL) is present, a receptor of the CTL chinds to a complex of the HLA molecule and the epitope. Specifically CC claimed are peptides having allele-specific binding motifs for HLA. The CC compositions and methods are useful for preventing, treating or CC diagnostic agents for evaluating immune responses, for making antibodies and for evaluating efficacy of a vaccine. Sequences given in ADM29251-CC ADM37745 represent epitopes of the invention as given in Tables 2-31.
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                       binding motifs for HLA, us 
viral diseases and cancer.
                                                                                                                                                                                                                                                                                                                                                                   New composition comprising at least one peptide having allele-specific binding motifs for HLA, useful for preventing, treating or diagnosing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             viral disease; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Virucide; cytostatic; gene therapy; vaccine; epitope; cytotoxic T cell; MHC class I; CTL; HTL; A2-restricted cytotoxic lymphocyte; HLA;
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Sequence
                                                                                                                                                                                                                                                                                                                        Claim 1; Page 52-379; 382pp; English.
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Pred. No.
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HPTNIHKYLVC

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ADW35209
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                                                              Best Loc
Matches
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                                                                                                                                                           claimed are peptides having allele-specific binding motifs for HLA. The compositions and methods are useful for preventing, treating or diagnosing viral diseases and cancer. The peptide epitopes are useful as diagnostic agents for evaluating immune responses, for making antibodies and for evaluating efficacy of a vaccine. Sequences given in ADW29251-ADW37745 represent epitopes of the invention as given in Tables 2-31.
                                                                                                                                                                                                                                                               composition comprises an epitope that is joined by an amino acid linker. The epitope is admixed or joined to a CTL or HTL epitope. The epitope is bound to an HLA molecule on the antigen-presenting cell, where when an X-restricted cytotoxic lymphocyte (CTL) is present, a receptor of the CTL binds to a complex of the HLA molecule and the epitope. Specifically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New composition comprising at least one peptide having allele-specific binding motifs for HLA, useful for preventing, treating or diagnosing viral diseases and cancer.
                                                                                                                                                                                                                                                                                                                                                 The invention relates to a composition comprising at least one peptide having an isolated, prepared epitope selected from any of the sequences from 30 lists given in the specification. Also disclosed is a method for inducing a cytotoxic T cell response against a pre-selected antigen in a patient expressing a specific MHC class I allele by contacting cytotoxic T cells from the patient with the composition cited above. The
                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 52-379; 382pp; English.
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20-APR-2001;
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4; Conserv
HPQKVTKFMLC 15
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                                                                  Conservative
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2001US-0285624P.
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                                                             Score 35; DB 7; LC
Pred. No. 1.1e+02;
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RESULT

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RESULT 23
ADW33976
ID ADW3:
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AC ADW3:
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DT 10-M2
XX
                                                                                                                                                                                                                                                                                               ADW33268 standard; peptide;
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                                                                                                                                                                                                                               Matches.
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Best Local
               10-MAR-2005
                                                ADW33976;
                                                                                                                                                                                                                                                                                               Sequence 15
                                                                           ADW33976 standard; peptide; 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New composition comprising at least one peptide having allele-specific binding motifs for HLA, useful for preventing, treating or diagnosing viral diseases and cancer.
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20-APR-2001; 2001US-0285624P.
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HPQKVTKFMLC
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36.4%;
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Pred. No. 1.1e+02;
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RESULT 24
ADN65435
ID ADN65
XX ADN65
XX ADN65
XX D1-JU
DT 01-JU
DX O1-JU
XX GYTOE
KW GYTOE
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cytostatic; hepatotropic; virucide; antiinflammatory; anti-HIV; gene therapy; vaccine; HIA binding peptide; HITL epitope; liposome; prostate specific membrane antigen; hepatitis B virus antigen; hepatitis C virus antigen; malignant melanoma antigen; MAGE; Epstein Barr virus; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a composition comprising at least one peptide having an isolated, prepared epitope selected from any of the sequences from 30 lists given in the specification. Also disclosed is a method for inducing a cytotoxic T cell response against a pre-selected antigen in a patient expressing a specific MHC class I allele by contacting cytotoxic T cells from the patient with the composition cited above. The composition comprises an epitope that is joined by an amino acid linker. The epitope is admixed or joined to a CTL or HTL policy.
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                                                                                                         HLA binding
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viral diseases and cancer.
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20-APR-2001;
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                                                                                                                                                                                                                 ADN65435 standard; peptide;
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                                                                                                         peptide #2035
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2001US-0285624P
                                                                                                                                            (first entry
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1.1e+02;
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The invention relates to a novel composition comprising one or more CC peptides or nucleic acids encoding an HLA binding peptide. The composition further comprises an HTL epitope. It also comprises a spacer CC composition further comprises an HTL epitope. It also comprises a spacer CC molecule, a carrier, an MHC targeting sequence or a lipid. The peptides comprises a part of a liposome. The peptide is from an antigen CC antigen (PSM), hepatitis B virus (HBV) antigen, hepatitis C (HIV-1), human immunodeficiency type-1 (HIV-1), human immunodeficiency type-1 (HIV-1), human immunodeficiency type-2 (HIV-2), CC immunodeficiency type-1 (HIV-1), human immunodeficiency type-2 (HIV-2), CC murine p53 (mp53), CEA, HER2/neu, and tyrosine kinase related protein CC (TKP). The composition is useful for preventing or treating viral CC infections or cancer, such as prostate cancer, hepatitis B, hepatitis C, CC infections or carcinoma, cervical carcinoma, lymphoma, CMV or chondyloma CC acuminatum. The composition is also be used for diagnosing such diseases.

CC This sequence represents a peptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New composition of peptides and nucleic acids capable of binding Major Histocompatibility Complex molecules, useful for diagnosing, preventing or treating viral infections or cancer, such as prostate cancer, hepatitis B or AIDS.
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08-OCT-2002; 2002US-0417269P.
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                                                                                      Sequence 15 AA;
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Length 15;
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RESULT 25
AAW30783
ID AAW30
XX AAW30
XX AAW30
XX AAW30
XX Prost
DT 27-FE
DT 27-FE
DX Prost
XX WPO57:
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Best Local
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                                                                                                                                              AAW30783 standard;
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                                                                                                        (first entry)
                                                                                                                                              peptide; 19
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                                                                                      (PSA)
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Pred. No. 1.1e+02;
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domo sapiens

Prostate specific antigen;

hK2; antigen;

antibody;

detection;

diagnosis;

PSA;

immunogenic; human glandular kallikrein;

prostate cancer

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Search completed: January 26, 2006, 07:58:09 Job time : 68.5345 secs
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                                                                                                                                                                                                   Query Match 32.1%;
Best Local Similarity 36.4%;
Matches 4; Conservative
                                                                                                                                                                                                                      AAW30769-84 are synthetic peptides derived from the prostate specific antigen (PSA) sequence. These peptides are identical to a highly immunogenic region of PSA, and also comprise one or more amino acids identical or non-identical to the amino acid sequence of human glandular kallikrein (hK2). The peptides are used as antigens for the production of antibodies which are used to detect PSA in a test sample (claimed). This is useful for diagnosis of prostate cancer. The peptides enable the production of antisera necessary to determine the amount of total PSA, free PSA and PSA-ACT complex present in a sample and thus improve the ability of the clinician to distinguish, e.g., between BPH (benign prostatic hyperplasia) and prostatic cancer in a patient
                                                                                                                                                                                                 Sequence 19 AA;
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ALIGNMENTS

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HYPLICANI: MEDET, EITC K.

TITLE OF INVENTION: NOVEL DERMATOPHAGOIDES NUCLEIC ACID MOLECULES, PROTEINS
TITLE OF INVENTION: AND USES THEREOF
FILE REFERENCE: AL-2-C3
CURRENT APPLICATION UNMER: US/09/292,225
CURRENT FILING DATE: 1998-04-15
EARLIER APPLICATION NUMBER: 60/098,909
EARLIER FILING DATE: 1998-05-13
EARLIER APPLICATION NUMBER: 60/085,295
EARLIER APPLICATION NUMBER: 60/098,565
EARLIER APPLICATION NUMBER: 60/098,565
EARLIER FILING DATE: 1998-04-17
EARLIER FILING DATE: 1998-04-17
EARLIER FILING DATE: 1998-04-17
SARLIER APPLICATION NUMBER: 09/062,013
EARLIER APPLICATION NUMBER: 09/062,013
EARLIER FILING DATE: 1998-04-17
SEQ ID NO 11
LENGTH: 19
TYPE: PRT
ORGANISM: Dermatophagoides farinae
US-09-292-225-11
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                                                                      SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 3
LENGTH: 20
TYPE: PRT
ORGANISM: Dermatophagoides farinae
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Query Match
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APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: NOVEL DERMATOPHAGOIDES NUCLEIC ACID MOLECULES, PROTEINS
TITLE OF INVENTION: AND USES THEREOF
FILE REPERENCE: AL-2-C3
CURRENT APPLICATION NUMBER: US/09/292,225
CURRENT FILLING DATE: 1999-04-15
EARLIER APPLICATION NUMBER: 60/098,909
EARLIER APPLICATION NUMBER: 60/098,909
EARLIER FILLING DATE: 1998-09-02
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EARLIER FILING DATE: 1998-05-13
EARLIER APPLICATION NUMBER: 60/098,565
EARLIER FILING DATE: 1998-04-17
EARLIER APPLICATION NUMBER: 09/062,013
EARLIER FILING DATE: 1998-04-17
NUMBER OF SEQ ID NOS: 49
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  Score 109;
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DB 2;
Length 20;
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US-08-595-945-15

Sequence 15, Application US/08595945 Patent No. 6143509

GENERAL INFORMATION:

APPLICANT:

DOWELL, BARRY L.
BRIDON, DOMINIQUE P.
QIU, XIAOXING
LILJA, HANS

APPLICANT: APPLICANT: Ś

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RESULT 4
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                                                                                                       Query Match 32.1%;
Best Local Similarity 36.4%;
Matches 4; Conservative
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/595,945
FILLING DATE: 06-FEB-1996
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: BECKER, CHERYL L.
REGISTRATION NUMBER: 35,441
REFERENCE/DOCKET NUMBER: 5875.US.01
                                                                                                                                                                                                                                                                                TELEFAX: 847-938-2623
INFORMATION FOR SEQ ID NO:
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
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                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                LENGTH: 15 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 60064-3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET:
                                                                                                                                                                                                                                                                                                               TELEPHONE:
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                                                                         4 HPTNIHKYLVC 14
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                                            HPQKVTKFMLC 15
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100 ABBOTT PARK ROAD
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VIHINEN, MAUNO A.
PETTERSSON, KIM S.I.
                                                                                                                                                                                                                                                                                                  847-938-2623
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BRIDON, DOMINIQUE P.
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linear
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                                                                                                                      Score 35; DB
Pred. No. 33;
                                                                                                            Mismatches
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                                                                                                                                        2:
                                                                                                                                        Length 15
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HPTNIHKYLVC 14

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APPLICANT: Kenten, John H
APPLICANT: Tramontano, Alfonso
APPLICANT: Tramontano, Alfonso
APPLICANT: Pilon, Aprile L
APPLICANT: Cohnas, Gerald L
APPLICANT: Roberts, Steven F
ITITE OF INVENTION: HEAT-SHOCK FUSION-BASED VACCINE SYSTEM
FILE REFERENCE: U.S. Patent Application No. 6319503 09\026,276
CURRENT APPLICATION NUMBER: US/09/026,276
CURRENT FILING DATE: 1998-02-19
NUMBER OF SEQ ID NOS: 35
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 20
LENGTH: 20
TYPE: PRT
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                                                                             ; ORGANISM: Homo sapiens
US-09-026-276-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; MOLECULE TYPE: protein US-08-595-945-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 19 mmino acids
TYPE: amino acid
STRANDEDNESS: single
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PACENTIN Release #1.0, Version #1.25
SOFTWARE: PACENTION DATA:
APPLICATION NUMBER: US/08/595,945
FILING DATE: 06-FEB-1996
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: BECKER, CHERYL L.
REGISTRATION NUMBER: 35,441
REFERENCE/DOCKET NUMBER: 5875.US.01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 847-935-1729
                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 4; Conserv
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Patent No. 6319503
                                      Query Match
                  Best Local Similarity
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: ABBOTT LABORATORIES
STREET: 100 ABBOTT PARK ROAD
CITY: ABBOTT PARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: PIIRONEN, TIMO P.
APPLICANT: VIHIMEN, MAUNO A.
APPLICANT: PETTERSSON, KIM S.I.
TITLE OF INVENTION: PROSTATE SPECIFIC ANTIGEN PEPTIDES
TITLE OF INVENTION: AND USES THEREOF
NUMBER OF SEQUENCES: 16
                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION:
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  Conservative
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linear
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                    32.1%; Score 35; DB 36.4%; Pred. No. 45;
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  Mismatches
                                      DB 2;
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3; Indels
                                      Length 20;
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Gaps
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APPLICANT: Pilon, Aprile L
APPLICANT: Lohnas, Gerald L
APPLICANT: Lohnas, Gerald L
APPLICANT: Roberts, Steven F
APPLICANT: Roberts, Steven F
ITILE OF INVENTION: HEAT-SHOCK FUSION-BASED VAC
FILE REFERENCE: U.S. Patent Application No. 666
CURRENT APPLICATION NUMBER: US/09/964,201A
CURRENT FILING DATE: 2002-05-21
NUMBER OF SEQ ID NOS: 35
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 20
LENGTH: 20
TYPE: PRT
TYPE: PRT
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US-07-829-462-6
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TELEFAX: 619-535-8949 INFORMATION FOR SEQ ID NO:
                            ATTORNEY/AGENT INFORMATION:
NAME: CAMPBELL, CATHRYN A.
REGISTRATION NUMBER: 31,547
REFERENCE/DOCKET NUMBER: P-LA
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619-535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Kenten, John APPLICANT: Tramontano,
                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Ruoslahti, I
APPLICANT: Morla, Alex
                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                          APPLICATION NUMBER: US FILING DATE: 19920131 CLASSIFICATION: 530
                                                                                                                                                                                                                              MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match 32.1%;
Local Similarity 36.4%;
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San Diego
: California
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Pilon, Aprile
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                 619-535-8949
                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ruoslahti, Erkki I.
                                                                                                                                                                                                                                                                                                                                                                                                   CAMPBELL AND FLORES
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                                                                      P-LA 9179
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Pred. No. 45;
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6660271
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US-08-159-339A-551
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                                                                   Query Match
Best Local !
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APPLICANT: Kubo,
                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                              MOLECULE TYPE:
                                                                                                                                                                                                                                                             NAME: Weber, Ellen Lauver
REGISTRATION NUMBER: 32,762
REPERENCE/DOCKET NUMBER: 018623-005030US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/027,746
FILING DATE: 05-WAR-1993
APPLICATION NUMBER: US 08/103,396
FILING DATE: 06-AUG-1993
ATTORNEY/AGENT INFORMATION:
NAME: Weber, Ellen Lauver
                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/926,666
FILING DATE: 07-AUG-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Kubo, Ralph T.
APPLICANT: Grey, Howard M.
APPLICANT: Sette, Alessandro
APPLICANT: Celis, Esteban
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                          STRANDEDNESS: sir
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                                                                                                                                                                      LENGTH: 10 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
FILING DATE: 29-NOV
CLASSIFICATION: 424
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Local Similarity 45.5%;
es 5; Conservative
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                                                                                                                                                                                     ENGTH:
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o. 6037135
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                                                     Similarity
5; Conserv
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IPHPAGLKK 10
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                                                      Conservative
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                                                                   29.4%;
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                                                      Score 32; DB Pred. No. 66; 1; Mismatches
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Pred. No. 48;
                                                                                    DB 2;
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                                                        Indels
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US-09-009-953-109
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US-09-962-756-51
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Patent No. 6413517
GENERAL INFORMATION:
APPLICANT: Sette, Alessandro
                                                                              APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                   Sequence 51, Application US/09962756 Patent No. 6875741
                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                       APPLICANT: PILLUTLA, RENUKA
APPLICANT: BRISSETTE, RENE
APPLICANT: BLUME, ARTHUR J
                                                             APPLICANT:
                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: <Unknown:
INFORMATION FOR SEQ ID NO: 109:
SEQUENCE CHARACTERISTICS:
LENGTH: 15 amino acids
TYPE: amino acid
                        PPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 60/036,713
FILING DATE: 23-JAN-1997
APPLICATION NUMBER: US 60/037,432
FILING DATE: 07-FEB-1997
ATTORNEY/AGENT INFORMATION:
NAME: Weber, Ellen Lauver
NAME: Weber, Ellen Lauver
REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 018623-011520US
TELECOMMUNICATION INFORMATION:
CANT: BRANDT, JAKOB
CANT: GOLDSTEIN, NEIL I.
CANT: SPETZLER, JANE
CANT: OSTERGAARD, SOREN
CANT: HANSEN, PER HERTZ
CANT: HANSEN, PER HERTZ
CANT: HANSEN, PER HERTZ
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SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 109:
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ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Identification of Broadly
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FILING DATE: 21-Jan-1998
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                          IPHPAGLKK 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM Compatible
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                                                                                                                   BRISSETTE, RENEE
BLUME, ARTHUR J.
SCHAFFER, LAUGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: 415-576-0200
TELEFAX: 415-576-0300
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Pred. No. 1e+02;
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PRIOR FILING DATE: 1998-09-02
NUMBER OF SEQ ID NOS: 2227
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 73, Application US/08529190B Patent No. 5833991
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CURRENT APPLICATION NUMBER: US/09/962,756
CURRENT FILING DATE: 2001-09-24
PRIOR APPLICATION NUMBER: 09/538,038
PRIOR FILING DATE: 2000-03-29
PRIOR FILING DATE: 2000-03-29
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                                                                                                       NFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                APPLICATION NUMBER: SE9501324-9
FILING DATE: 10-APR-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM Compatible OPERATING SYSTEM: DOS SOFTWARE: Wordperfect 6.1 CURRENT APPLICATION DATA:
 TOPOLOGY:
                                                                                                                                       REFERENCE/DOCKET NUMBER: 32
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-345-9100
                                                                                                                                                                                                                              FILING DATE: 01-SEP-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Masucci,
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                       SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/529,1908 FILING DATE: 15-SEP-1995 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: One E
                                 STRANDEDNESS:
                                                                                                                                                                                         NAME: Williams, Ph.D., Kathleen A
REGISTRATION NUMBER: 34,380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
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                                              amino acid
TYPE:
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                unknown
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                                 single
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GLYCINE-CONTAINING SEQUENCES
CONFERRING INVISIBILITY TO TE
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1.8e+02;
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US-09-791-524A-3
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; ORGANISM: Adenovirus
US-09-791-524A-3
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Patent No. 565672
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Best Local Similarity
Matches 5; Conserv
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Best Local
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Patent No. 6911199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: PCT/IB99/01524
PRIOR FILING DATE: 199-08-27
PRIOR APPLICATION NUMBER: US 60/098,028
PRIOR FILING DATE: 1998-08-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/791,524A CURRENT FILING DATE: 2001-02-22
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TITLE OF INVENTION: Targeted Adenovirus Vectors For Delivery Of Heterologous Genes
FILE REFERENCE: P26,992-B USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn version 3.2
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                                               CLASSIFICATION: 530
PRIOR APPLICATION NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Rosenberg, Steven,
APPLICANT: Doyle, Michael
APPLICANT: Goodson, Robert
TITLE OF INVENTION: Peptide Inhibitors of Urokinase Receptor
TITLE OF INVENTION: Activity

TITLE OF INVENTION: 37
                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
ATTORNEY/AGENT INFORMATION: NAME: Green, Grant D.
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                                                                                                                                                                                                                                                                                      STREET: 4560 HOLD
CITY: Emeryville
                                                                                                   APPLICATION NUMBER: FILING DATE:
                                  FILING DATE
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5; Conserv
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                                                  US/08/061,514
                                                                                                                   us/08/370,567
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Pred. No. 1.6e+02;
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Pred. No. 4.6e+05
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Best Local Similarity
Matches 5; Conserve
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                                                                                                            TELEPHONE: 510-601-2706
TELEPAX: 510-655-3542
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids
TYPE: amino acid
Query Match
Best Local Similarity
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Patent No. 5679782
GENERAL INFORMATION:
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LENGTH: 17 amino acids
TYPE: amino acid
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/438,759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Rosenberg, Steven
APPLICANT: Doyle, Michael
APPLICANT: Goodson, Robert
TITLE OF INVENTION: Peptide Inhibitors of Urokinase Receptor
TITLE OF INVENTION: Activity
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TELEPHONE: 510-601-2706
TELEFAX: 510-655-3542
                                                                   MOLECULE TYPE: peptide HYPOTHETICAL: NO
                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: 510-601-2706
                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
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ADDRESSEE: Chiron Corporation
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                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                      NAME: Green, Grant D.
REGISTRATION NUMBER: 31,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                   FILING DATE:
APPLICATION NUMBER: US/08/061,514
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REFERENCE/DOCKET NUMBER:
                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                             FILING DATE
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28.4%;
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2; Mismatches
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 Score 31; DB 1;
Pred. No. 1.7e+02;
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1.7e+02
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                 Length 17;
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Sequence 10, Application US/094
Patent No. 6528619
GENERAL INFORMATION:
APPLICANT: BUERGLE, Markus
APPLICANT: GRAEFF, Heinrich
APPLICANT: KESSLER, HOrst
APPLICANT: MAGDOLEN, Viktor R
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US-08-538-911-20
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US-09-402-641-10
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Matches 5; Conserv
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/538,911
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 510-655-3542
INFORMATION FOR SEQ ID NO:
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APPLICANT:
              APPLICANT:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/069,352
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Green, Grant D.
REGISTRATION NUMBER: 31,259
REFERENCE/DOCKET NUMBER: 040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Doyle, Michael
APPLICANT: Winter, Jill
TITLE OF INVENTION: Method For Selection Of Biologically
TITLE OF INVENTION: Active Peptide Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
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ADDRESSEE: Chiron Corporation
                                                                                                                                                                                                                                                                                                                                                  HYPOTHETICAL:
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                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 17 amino acids
TYPE: amino acid
STRANDEDNESS: single
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5. 5750344
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                                                                                                                           Application US/09402641
KOPPITZ, Marcus
              KOENIG, Bernhard
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45.5%;
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Pred. No. 1.7e+02;
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US-09-411-067C-2
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Matches 5; Conserv
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SEQ ID NO 2
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APPLICANT: NUVAS, LLC
APPLICANT: HOUSTON, L.L.
TITLE OF INVENTION: USE OF A CONTEXT-DEPENDENT FUNCTIONAL ENTITY TO ENHANCE THE EFFI-
TITLE OF INVENTION: AN AGENT
                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
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                                          JENERAL INFORMATION:
APPLICANT: REIGE, ULRICH
APPLICANT: LIU, CHUAN-FA
APPLICANT: CHESTHAM, JANET C.
APPLICANT: CHESTHAM, JANET C.
APPLICANT: BOONE, THOMAS CHARLES
APPLICANT: BOONE, MODIFIED PEPTIDES AS THERAPEUTIC AGENTS
                                                                                                                                                                                                            ·09-428-082B-196
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CURRENT FILLNG DATE: 2000-01-10
PRIOR APPLICATION NUMBER: EP97106024.9
PRIOR FILING DATE: 1997-04-11
PRIOR APPLICATION NUMBER: PCT/EP98/02178
PRIOR FILING DATE: 1998-04-14
NUMBER OF SEQ ID NOS: 10
                                  FILE REFERENCE: A-527
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TITLE OF INVENTION: INHIBITORS FOR UROKINASE RECEPTOR
FILE REFERENCE: Case 20367US
                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 17
TYPE: PRT
ORGANISM: Homo sapiens
URRENT APPLICATION NUMBER: US/09/428,0828
URRENT FILING DATE: 1999-10-22
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SCHMITT, Manfred
WEIDLE, Ulrich
                                                                                                                                                                                                                                                                                                                                                                  Conservative
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45.5%;
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45.5%;
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Pred. No. 1.7e+02;
2; Mismatches ;
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Pred. No. 1.7e+02;
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PRIOR APPLICATION NUMBER: PCT/US37/05199
PRIOR FILING DATE: 1997-03-28
PRIOR PPLICATION NUMBER: 08/623,361
PRIOR FILING DATE: 1996-03-28
NUMBER OF SEQ ID NOS: 76
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 16
LENGTH: 17
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: peptide ligand
US-09-155-260C-16
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US-09-155-260C-16
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Matches 5; Conservative
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Best Local Similarity 45.5%;
Matches 5; Conservative
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                                                                                                                                                                                                                                         Patent No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 16, Application US/09155260C
APPLICANT: Magdolen, Viktor
APPLICANT: Wilhelm, Olaf G.
APPLICANT: Riemer, Christoph
APPLICANT: Burgle, Markus
TITLE OF INVENTION: Inhibitors for Urokinase
FILE REFERENCE: 100564-09040
CURRENT APPLICATION NUMBER: US/09/402,464
CURRENT FILING DATE: 2000-01-07
                                                                                                                                                             APPLICANT:
                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: ROSENBERG, STEVE
APPLICANT: DOYLE, MICHAEL
APPLICANT: CHAPMAN, HAROLD
TITLE OF INVENTION: PEPTIDE LIGANDS OF THE UROKINASE RECEPTOR
FILE REFERENCE: 014024-0284102
CURRENT APPLICATION NUMBER: US/09/155,260C
CURRENT FILING DATE: 1998-09-23
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PRIOR FILING DATE: 1998-10-23
NUMBER OF SEQ ID NOS: 1133
                                                                                                                                                       APPLICANT: Kessler, Horst
APPLICANT: Graeff, Heinrich
APPLICANT: Schmitt, Manfred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
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Pred. No. 1.7e+02;
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Pred. No. 1.7e+02;
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RESULT 21
US-09-791-524A-4
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PCT-US94-05591-20
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; ORGANISM: Homo sapiens
US-09-402-464-1
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Matches
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                 Sequence 20, Application PC/TUS9405591
GENERAL INFORMATION:
APPLICANT: Doyle, Michael V.
TITLE OF INVENTION: Method For Selection Of Biologically
TITLE OF INVENTION: Active Peptide Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 45.5%;
Matches 5; Conservative
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LENGTH: 1
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TITLE OF INVENTION: Targeted Adenovirus Vectors For Delivery Of Heterologous Genes
FILE REFERENCE: p26,992-B USA
CURRENT APPLICATION NUMBER: US/09/791,524A
CURRENT FILING DATE: 2001-02-22
PRIOR APPLICATION NUMBER: PCT/IB99/01524
PRIOR TILING DATE: 1999-08-27
PRIOR FILING DATE: 1999-08-27
PRIOR FILING DATE: 1998-08-27
NUMBER OF SEQ ID NOS: 165
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 17
TYPE: PRT
ORGANISM: Adenovirus
             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/05591
                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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CITY: Emeryville
STATE: CA
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                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                              ADDRESSEE:
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45.5%;
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Pred. No. 1.7e+02;
2; Mismatches 4
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Best Local
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                         TELEFAX: 510-655-3542
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/05684
                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 510-601-2706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Chiron Corporation
TITLE OF INVENTION: Peptide Inhibitors of Urokinase Receptor
TITLE OF INVENTION: Activity
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ADDRESSEE: Chiron Corporation
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hes 5; Conservative
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REGISTRATION NUMBER: 31,259
REFERENCE/DOCKET NUMBER: 04
                                                                                                                                                                                                                                                                                     NAME: Green, Grant D. REGISTRATION NUMBER: 31, REFERENCE/DOCKET NUMBER:
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CITY: Emeryville
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TYPE: amino acid
STRANDEDNESS: single
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CLASSIFICATION:
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                                                              Score 31; DB 4;
Pred. No. 1.7e+02;
                                                 Mismatches
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                                                                           Length 17;
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RESULT 24
US-09-791-524A-9
Sequence 9, Application US/09791524A
Patent No. 6911199
Patent No. 6911199
GENERAL INFORMATION: Targeted Adenovirus Vectors For Delivery Of Heterologous Genes
FILE OF INVENTION: Targeted Adenovirus Vectors For Delivery Of Heterologous Genes
FILE REFERENCE: P26,992-B USA
CURRENT APPLICATION NUMBER: US/09/791,524A
CURRENT FILING DATE: 2001-02-22
PRIOR APPLICATION NUMBER: PCT/IB99/01524
PRIOR FILING DATE: 1999-08-27
PRIOR APPLICATION NUMBER: US 60/098,028
PRIOR FILING DATE: 1998-08-27
NUMBER OF SEQ ID NOS: 165
SEQ ID NO 9
LENGTH: 20
TYPE: PRT
ORGANISM: Adenovirus
US-09-791-524A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 25
US-09-791-524A-10
US-09-791-524A
; Sequence 10, Application US/09791524A
; Sequence 10, Application US/09791524A
; Patent No. 6911199
; GENERAL INFORMATION:
; APPLICANT: Aventis Pharmaceuticals Products Inc.
; TITLE OF INVENTION: Targeted Adenovirus Vectors For Delivery Of Heterologous Genes
; FILE REFERENCE: P26,992-B USA
; CURRENT APPLICATION NUMBER: US/09/791,524A
; CURRENT FILING DATE: 2001-02-22
; PRIOR APPLICATION NUMBER: PCT/IB99/01524
; PRIOR APPLICATION NUMBER: US/09/91,524A
; PRIOR FILING DATE: 1999-08-27
; PRIOR FILING DATE: 1999-08-27
; PRIOR FILING DATE: 1999-08-27
; NUMBER OF SEQ ID NOS: 165
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Search completed: January 26, 2006, 08:07:03 Job time: 19.0201 secs
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US-09-791-524A-10
                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn version 3.2
SEQ ID NO 10
LENGTH: 21
TYPE: PRT
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1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*

6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*
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109
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      DIPHPTNIHKYLVCESVNG
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Copyright (c) 1993 - 2006 Compugen
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US-09-954-385-54
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US-10-423-649A-9
US-11-008-653-128
US-10-430-685-95
US-10-253-471-51
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Sequence 11, Appl Sequence 38552, A Appl Sequence 54, Appl Sequence 54, Appl Sequence 54, Appl Sequence 20, Appl Sequence 20, Appl Sequence 20, Appl Sequence 47, Appl Sequence 117, Appl Sequence 611, Appl Sequence 617, Appl Sequence 119, Appl Sequence 2265, Appl Sequence 119, Appl Sequence 119, Appl Sequence 2265, Appl Sequence 9, Appl Sequence 9, Appl Sequence 51, Appl
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     29, Applia 4, Applia 196, Appl
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ALIGNMENTS

SENERAL INFORMATION:

Application US/10218743

US20030096779A1

APPLICANT: McCall, Catherine A. APPLICANT: Hunter, Shirley Wu APPLICANT: Weber, Eric R.

CURRENT APPLICATION NUMBER: US/10/218,743
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/292,225
PRIOR FILING DATE: 1999-04-15
PRIOR FILING DATE: 1999-04-15

FILE REFERENCE: AL-2-C3

TITLE OF INVENTION: NOVEL DERMATOPHAGOIDES NUCLEIC ACID MOLECULES, PROTEINS TITLE OF INVENTION: AND USES THEREOF

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RESULT 2
US-10-218-743-3
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; LENGTH: 19
; TYPE: PRT
; ORGANISM: Dermatophagoides farinae
US-10-218-743-11
                 SOFTWARE: Patr
SOFTWARE: Patr
SEQ ID NO 3
SEQTH: 20
                                                                                                            CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/292,225
PRIOR FILING DATE: 1999-04-15
PRIOR FILING DATE: 1999-09-02
PRIOR PELICATION NUMBER: 60/098,909
PRIOR PELICATION NUMBER: 60/085,295
PRIOR PELICATION NUMBER: 60/085,295
PRIOR APPLICATION NUMBER: 60/098,565
PRIOR APPLICATION NUMBER: 60/098,565
PRIOR APPLICATION NUMBER: 09/062,013
PRIOR APPLICATION NUMBER: 09/062,013
PRIOR APPLICATION NUMBER: 09/062,013
PRIOR APPLICATION NUMBER: 09/062,013
PRIOR FILING DATE: 1998-04-17
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PRIOR FILLING DATE: 1998-05-13
PRIOR PEPLICATION NUMBER: 60/098,565
PRIOR FILLING DATE: 1998-04-17
PRIOR APPLICATION NUMBER: 09/062,013
PRIOR FILLING DATE: 1998-04-17
NUMBER OF SEC ID NOS: 49
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Publication No. US20030096779A1
GENERAL INFORMATION:
APPLICANT: McCall, Catherine A.
APPLICANT: Hunter, Shirley Wu
APPLICANT: Weber, Eric R.
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CURRENT APPLICATION NUMBER: US/10/218,743
CURRENT FILING DATE: 2002-08-13
                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: NOVEL DERMATOPHAGOIDES NUCLEIC ACID MOLECULES, TITLE OF INVENTION: AND USES THEREOF
LENGTH: 20
TYPE: PRT
                                                                                               NUMBER OF SEQ ID NOS: 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Ver. 2.0
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FILING DATE: 1998-09-02
                                                                        PatentIn Ver. 2.0
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100.0%; Pred. No. 1.1e-09;
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US-09-864-761-38552
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CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 2000-08-03
PRIOR FILING DATE: 2000-08-03
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PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/USO1/00669
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/USO1/00665
PRIOR APPLICATION NUMBER: PCT/USO1/00668
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/USO1/00668
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/USO1/00663
PRIOR APPLICATION NUMBER: PCT/USO1/00663
PRIOR FILING DATE: 2001-01-30
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                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 49117
SOFTWARE: Annomax Sequence Listing Engine vers.
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PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: PCT/US01/00666
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00667
PRIOR FILING DATE: 2001-01-30
PRIOR FILING DATE: 2001-01-30
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APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00661
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00670
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FEATURE:
OTHER INFORMATION: MAP TO AC005099.1
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 1.6
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 2000-09-21
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PRIOR APPLICATION NUMBER: US 60/234,687
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                                                                                                                                             ORGANISM: Homo sapiens
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ilarity 100.0%;
Conservative 0
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Pred. No. 1.2e-09;
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                                                                                                                                                                                                                                                                                    Sequence 54, Application US/10912512 Publication No. US20050042684A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
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CURRENT FILING DATE: 2001-09-12
NUMBER OF SEQ ID NOS: 433
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 54
LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Best Local Similarity
APPLICANT: Winetzky, Deborah S.
TITLE OF INVENTION: Binding Phenol Oxidizing Enzyme-peptide
TITLE OF INVENTION: Complexes
FILE REFERENCE: GGC90
CURRENT APPLICATION NUMBER: US/10/912,512
CURRENT FILING DATE: 2004-08-05
PRIOR APPLICATION NUMBER: US/09/954,385
PRIOR APPLICATION NUMBER: US/09/954,385
PRIOR FILING DATE: 2001-09-12
NUMBER OF SEQ ID NOS: 433
                                                                                                                                                                                                        APPLICANT: Aehle, Wolfgang
APPLICANT: Baldwin, Toby L.
APPLICANT: Van Gastel, Franciscus J.C.
APPLICANT: Janssen, Giselle G.
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TITLE OF INVENTION: Binding Phenol Oxidizing Enzyme-peptide
TITLE OF INVENTION: Complexes
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Janssen, Giselle G.
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Murray, Christopher J.
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Murray, Christopher J.
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EXPRESSED IN HELA, SIGNAL = 1.8
EXPRESSED IN HEART, SIGNAL = 1.9
EXPRESSED IN BRAIN, SIGNAL = 1.9
EXPRESSED IN ADULT LIVER, SIGNAL = 1.8
SWISSPROT HIT: P53820, EVALUE 8.80e+00
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42.9%;
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Pred. No. 1.7e+06;
1; Mismatches
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Pred. No. 1.2e+02;
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APPLICANT: Pilon, Aprile L
APPLICANT: Lohnas, Gerald L
APPLICANT: Lohnas, Gerald L
APPLICANT: Roberts, Steven F
TITLE OF INVENTION: HEAT-SHOCK FUSION-BASED VACCINE SYSTEM
FILE REFERENCE: U.S. Patent Application No. US20030091575A1 09\
CURRENT APPLICATION NUMBER: US/09/964,201A
CURRENT FILING DATE: 2002-05-21
NUMBER OF SEQ ID NOS: 35
SOFTMARE: PatentIn Ver. 2.0
SEQ ID NO 20
LENGTH: 20
TYPE: PRT
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                                                                                                                                                                                                                                                     Sequence 20, Application US/09964201A Publication No. US20030091575A1 GENERAL INFORMATION:
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Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 54
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Matches
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                                                                                                                                                                                                                  APPLICANT: Kenten, John H
APPLICANT: Tramontano, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Winetzky, Deborah S.
TITLE OF INVENTION: Binding Phenol Oxidizing Enzyme-Peptide
TITLE OF INVENTION: Complexes
FILE REFERENCE: GC690-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/235,043
CURRENT FILING DATE: 2002-09-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 446
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Aehle, APPLICANT: Baldw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: binding peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
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                                                                                                                                                                            Tramontano, Alfonso
Pilon, Aprile L
Lohnas, Gerald L
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Murray, Christopher J.
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83.3%;
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Pred. No. 1.7e+06;
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Pred. No. 1.7e+06;
1; Mismatches (
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APPLICANT: Pilon, Aprile L
APPLICANT: Lohnas, Gerald L
APPLICANT: Lohnas, Gerald L
APPLICANT: Roberts, Steven F
TITLE OF INVENTION: HEAT-SHOCK FUSION-BASED VACCINE SYSTEM
FILE REFERENCE: U.S. Patent Application No. 09\026,276
CURRENT APPLICATION NUMBER: US/10/681,388
CURRENT FILING DATE: 2003-10-07
PRIOR APPLICATION NUMBER: US/09/964,201
PRIOR FILING DATE: 2002-05-21
NUMBER OF SEQ ID NOS: 35
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 20
LENGTH: 20
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US-10-681-388-20
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US-10-681-389-20
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                                                                                             ; ORGANISM: Homo sapiens
US-10-681-388-20
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                Query Match 32.1%;
Best Local Similarity 36.4%;
Matches 4; Conservative
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Best Local Similarity 36.4%;
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APPLICANT: Pilon, Aprile L
APPLICANT: Lohnas, Gerald L
APPLICANT: Lohnas, Gerald L
APPLICANT: Roberts, Steven F
TITLE OF INVENTION: HEAT-SHOCK FUSION-BASED VACCINE SYSTEM
FILE REFERENCE: U.S. Patent Application No. 09\026,276
CURRENT APPLICATION NUMBER: US/10/681,389
CURRENT FILING DATE: 2003-10-07
PRIOR APPLICATION NUMBER: US/9/964,201A
PRIOR FILING DATE: 2002-05-21
NUMBER OF SEQ ID NOS: 35
                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Kenten, John H
APPLICANT: Tramontano, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.0
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APPLICANT: Tramontano, A
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TYPE: PRT
ORGANISM: Homo sapiens
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Pilon, Aprile L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/10681389
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              Score 35; DB 4; Length 20; Pred. No. 2.9e+02; 4; Mismatches 3; Indels
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Pred. No. 2.9e+02;
4; Mismatches 3
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APPLICANT: Chu, Yong-Liang
APPLICANT: Chu, Yong-Liang
APPLICANT: Qiu, Jian-Tai
ITILE OF INVENTION: Polymeric Conjugates for Delivery of
ITITLE OF INVENTION: MHC-Recognized Epicopes
ITITLE OF INVENTION: Wia Peptide Vaccines
FILE REFERENCE: 3781-001-27
CURRENT APPLICATION NUMBER: US/10/062,710
CURRENT FILING DATE: 2002-02-05
PRIOR APPLICATION NUMBER: US 60/310,498
PRIOR FILING DATE: 2001-08-08
NUMBER OF SEQ ID NOS: 232
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 50
LENGTH: 21
                                                                                                                                                                                                                        APPLICANT: DEGRECOT, ANNE S.

APPLICANT: DEGRECOT, ANNE S.

FILE REFERENCE: 17999-001

CURRENT APPLICATION NUMBER: US/10/200,708

CURRENT FILING DATE: 2002-07-22

PRIOR APPLICATION NUMBER: US/99/351,036

PRIOR APPLICATION NUMBER: US/09/3546

PRIOR FILING DATE: 1999-07-09

PRIOR APPLICATION NUMBER: 60/092,346

PRIOR APPLICATION NUMBER: 60/115,145

PRIOR FILING DATE: 1999-01-08

PRIOR FILING DATE: 1999-01-08

PRIOR PRIOR FILING DATE: 1999-04-03

NUMBER OF SEQ ID NOS: 672

PRIOR FILING DATE: 1999-04-23

NUMBER OF SEQ ID NOS: 672

SOFTWARE: PatentIn Ver. 2.1
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US-10-062-710-50
                                                        Query Match
Best Local Similarity
Thes 5; Conserva
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Sequence 47, Application US/10200708
Publication No. US20030180314A1
GENERAL INFORMATION:
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; OTHER INFORMATION: HIV Helper-T Cell Epitopes
US-10-062-710-50
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Publication No. US20030049253A1
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Best Local Similarity
                                                                                                                                                                         ORGANISM: Human immunodeficiency virus
                                                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                LENGTH: 10
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IPHPAGLKK 9
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                                    IPHPTNIHK 10
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                                                                            Conservative
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                                                                                             29.4%;
                                                                            1; Mismatches
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                                                                                             Score 32; DB 4;
Pred. No. 4.1e+02;
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Pred. No. 6.3e+02;
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RESULT 12
US-10-200-708-95
; Sequence 95, Application US/10200708
; Publication No. US20030180314A1
; Publication FARMATION:
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CURRENT FILING DATE: 2002-07-22
PRIOR APPLICATION NUMBER: US/09/351,036
PRIOR FILLING DATE: 1999-07-09
PRIOR APPLICATION NUMBER: 60/092,346
PRIOR FILLING DATE: 1998-07-10
PRIOR APPLICATION NUMBER: 60/115,145
PRIOR FILLING DATE: 1999-01-08
PRIOR APPLICATION NUMBER: 60/130,677
PRIOR APPLICATION NUMBER: 60/130,677
PRIOR FILLING DATE: 1999-01-08
PRIOR FILLING DATE: 1999-01-08
                                                                                                               Query Match
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Best Local
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Publication No.
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                                                                                                                                                   ORGANISM: Human immunodeficiency virus -10-200-708-117
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                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US/09/351,036
PRIOR FILING DATE: 1999-07-09
PRIOR APPLICATION NUMBER: 60/092,346
PRIOR FILING DATE: 1998-07-10
PRIOR APPLICATION NUMBER: 60/115,145
PRIOR FILING DATE: 1999-01-08
                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/130,677 PRIOR FILING DATE: 1999-04-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: DeGroot, Anne S.
TITLE OF INVENTION: HIV VACCINE CANDIDATE PEPTIDES
FILE REFERENCE: 17999-001
                                                                                                                                                                                                                                                              PHIOR FILING DATE: 1999-04-23
NUMBER OF SEQ ID NOS: 672
                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/200,708
CURRENT FILING DATE: 2002-07-22
                                                                                                                                                                                                                                                SOFTWARE: PatentIn Ver.
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TITLE OF INVENTION: HIV VACCINE CANDIDATE PEPTIDES
FILE REFERENCE: 17999-001
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                                                                        Similarity 55.0 5; Conservative
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                                  IPHPTNIHK 10
IPHPAGLKK 10
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                                                                                       29.4%;
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                                                                      Score 32; DB
Pred. No. 4.16
1; Mismatches
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Pred. No. 4.1e+02;
1; Mismatches 3;
                                                                  . 4.1e+02;
3;
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RESULT 14

US-10-417-895A-36 ; Sequence 36, Application US/10417895A ; Publication No. US20040033569A1

RESULT 16

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US-10-200-708-671
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; ORGANISM: Human immunodeficiency virus
US-10-200-708-119
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                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/200,708
CURRENT FILING DATE: 2002-07-22
PRIOR APPLICATION NUMBER: US/09/351,036
PRIOR FILING DATE: 1999-07-09
PRIOR APPLICATION NUMBER: 60/092,346
PRIOR FILING DATE: 1998-07-10
PRIOR APPLICATION NUMBER: 60/115,145
PRIOR APPLICATION NUMBER: 60/130,677
PRIOR APPLICATION NUMBER: 60/130,677
PRIOR APPLICATION NUMBER: 60/130,677
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CURRENT FILING DATE: 2002-07-22
PRIOR APPLICATION NUMBER: US/09/351,036
PRIOR FILLING DATE: 1999-07-09
PRIOR APPLICATION NUMBER: 60/092,346
PRIOR FILLING DATE: 1998-07-10
PRIOR PILLING DATE: 1998-07-10
PRIOR FILLING DATE: 1999-01-08
PRIOR FILLING DATE: 1999-01-08
PRIOR APPLICATION NUMBER: 60/130,677
PRIOR APPLICATION NUMBER: 60/130,677
PRIOR FILLING DATE: 1999-01-08
PRIOR FILLING DATE: 1999-01-08
                                                                             Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                              SEQ ID NO 671
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Publication No. US20
GENERAL INFORMATION:
                                                                                                                     Query Match
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Best Local Similarity
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NUMBER OF SEQ ID NOS: 672
                                                                                                                                                                                                                                                                   SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: DeGroot, Anne S.
TITLE OF INVENTION: HIV VACCINE CANDIDATE PEPTIDES
FILE REFERENCE: 17999-001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 672
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TITLE OF INVENTION: HIV VACCINE CANDIDATE PEPTIDES
                                                                                                                                                                           TYPE: PRT ORGANISM: Human immunodeficiency virus
                                                                                                                                                                                                                        LENGTH:
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IPHPAGLKK 10
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                                                                               Conservative
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                                                                                              29.4%;
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Pred. No. '
                                                                             Score 32; DB 4;
Pred. No. 4.1e+02;
1; Mismatches 3
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                                                                                                                     Length 10;
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                                                                             Gaps
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                                       ; ORGANISM: Human severe acute respiratory system virus
US-10-808-187-2265
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APPLICANT: Crea, Roberto
APPLICANT: Crea, Roberto
APPLICANT: Cappuccilli, Guido
TITLE OF INVENTION: "DOPING" IN WALK-THROUG
FILE REFERENCE: 1551.2002-001
CURRENT APPLICATION UNMBER: US/10/417,895A
CURRENT FILING DATE: 2003-04-16
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Best Local Similarity
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                                                                                                                          SEQ ID NO 2265
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Query Match
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PRIOR FILING DATE: 2002-04-17
NUMBER OF SEQ ID NOS: 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: NICHOLLS, JOHN
TITLE OF INVENTION: A DIAGNOSTIC ASSAY FOR THE HUMAN VIRUS CAUSING SEVERE.
TITLE OF INVENTION: RESPIRATORY SYNDROME (SARS)
FILE REFERENCE: V9661.0078
FILE REFERENCE: V9661.0078
CURRENT APPLICATION NUMBER: US/10/808,187
CURRENT FILING DATE: 2004-03-24
PRIOR FILING DATE: 2003-03-24
PRIOR FILING DATE: 2003-03-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                       PRIOR APPLICATION NUMBER: 60/471,200 PRIOR FILING DATE: 2003-05-16
                                                                                                                                            SOFTWARE: PatentIn ver.
                                                                                                                                                                    NUMBER OF SEQ ID NOS: 2476
                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/459,931 PRIOR FILING DATE: 2003-04-02
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: variant peptide for second complementarity OTHER INFORMATION: determining region of Fv region of an OTHER INFORMATION: immunoglobulin
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TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                    ENGTH: 14
                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/461,265
FILING DATE: 2003-04-08
APPLICATION NUMBER: 60/462,805
                                                                                                                                                                                                                                                                        FILING DATE: 2003-04-14
APPLICATION NUMBER: 60/468,139
FILING DATE: 2003-05-05
                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/460,357 FILING DATE: 2003-04-03
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FILING DATE: 2003-04-23
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CHAN, KWOK HUNG
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55.6%;
29.4%;
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Pred. No. 5.8e+02
1; Mismatches
Score 32;
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Length 14;
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APPLICANT: NICHOLLS, JOHN M.

APPLICANT: NICHOLLS, JOHN M.

TITLE OF INVENTION: A HIGH-THROUGHPUT DIAGNOSTIC ASSAY FOR THE HUMAN VIRUS
TITLE OF INVENTION: CAUSING SEVERE ACUTE RESPIRATORY SYNDROME (SARS)
FILE REFERENCE: V9661.0077
CURRENT APPLICATION NUMBER: US/10/807,807
CURRENT FILING DATE: 2004-03-24
PRIOR APPLICATION NUMBER: 60/457,031
PRIOR APPLICATION NUMBER: 60/457,031
PRIOR APPLICATION NUMBER: 60/457,730
PRIOR APPLICATION NUMBER: 60/457,730
PRIOR APPLICATION NUMBER: 60/459,931
PRIOR APPLICATION NUMBER: 60/459,931
PRIOR APPLICATION NUMBER: 60/460,357
PRIOR APPLICATION NUMBER: 60/460,357
PRIOR APPLICATION NUMBER: 60/461,265
PRIOR APPLICATION NUMBER: 60/461,265
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US-10-103-395-109
; Sequence 109, Application US/10103395
; Publication No. US20020160019A1
; GENERAL INFORMATION:
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SEQ ID NO 2265
LENGTH: 14
TYPE: PRT
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Best Local
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APPLICANT:
APPLICANT:
              TITLE OF INVENTION: IDENTIFICATION OF BROADLY TITLE OF INVENTION: RESTRICTED EPITOPES FILE REFERENCE: 39963-20016.01
                                                                         APPLICANT: EPIMMUNE, Inc.
APPLICANT: Sette, Alessa
APPLICANT: Sidney, John
APPLICANT: Southwood, Sc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: 60/470,935 PRIOR FILING DATE: 2003-05-14
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PRIOR APPLICATION NUMBER: 60/462,805
CURRENT APPLICATION NUMBER: US/10/103,395
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5; Conserv
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                                                                           Sette, Alessandro
Sidney, John
Southwood, Scott
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Pred. No. 5.
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US-10-442-909-32
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; ORGANISM: Homo sapiens
US-10-103-395-109
                                                                                                                                                                                                                                                                                                                                                                                                                                       ; OTHER INFORMATION: HIV Helper-T Cell Epitopes US-10-062-710-19
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CURRENT FILING DATE: 2002-02-05
PRIOR APPLICATION NUMBER: US 60/310,498
PRIOR FILING DATE: 2001-08-08
NUMBER OF SEO ID NOS: 232
SOFTWARE: FABESEQ for Windows Version 4.0
SEQ ID NO 19
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PRIOR APPLICATION NUMBER: US 09/009,953
PRIOR FILING DATE: 1998-01-21
PRIOR APPLICATION NUMBER: PCT/US98/01373
PRIOR FILING DATE: 1998-01-23
PRIOR FILING DATE: 1998-01-23
PRIOR APPLICATION NUMBER: US 60/036,713
PRIOR APPLICATION NUMBER: US 60/037,432
PRIOR APPLICATION NUMBER: US 60/037,432
PRIOR APPLICATION NUMBER: US 60/037,432
PRIOR FILING DATE: 1997-02-07
                                                                                                                                    Sequence 32, Application US/10442909 Publication No. US20040001845A1 GENERAL INFORMATION:
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Best Local Similarity
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SEQ ID NO 109
LENGTH: 15
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Best Local
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APPLICANT: Qiu, Jian-Tai
TITLE OF INVENTION: Polymeric Conjugates for Delivery of
TITLE OF INVENTION: MHC-Recognized Epitopes
TITLE OF INVENTION: Via Peptide Vaccines
FILE REFERENCE: 3781-001-27
                  APPLICANT: Walker, Bruce
APPLICANT: Addo, Marylyn
TITLE OP INVENTION: Cytotoxic T-Cell Epitopes of HIV-1 Virus
FILE REFERENCE: 24028-010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Li, Frank Q. APPLICANT: Chu, Yong-L
                                                                                              APPLICANT: Altfeld, Marcus APPLICANT: Yu, Xu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS:
CURRENT APPLICATION NUMBER: US/10/442,909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 16
                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                   2 IPHPTNIHK 10
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5; Conserv
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55.6%;
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Pred. No. 6.7e+02
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Pred. No. 6.3e+02;
1; Mismatches 3
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                                                                                                                                                                                                                                                                                                                                                                                             Length 16
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RESULT 23
US-11-008-653-128
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Human immunodeficiency virus type
US-10-442-909-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-285-649A-9
                                                                                                                                                                                                                   GENERAL INFORMATION:
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SOFTWARE: IBM PC; Windows 2000; Microsoft Word 2000
SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
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                                                                                                                                                                                                                                   Sequence 128, Appropriate Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local :
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Best Local 9
                                 CURRENT APPLICATION NUMBER: US/11/008,653
CURRENT FILING DATE: 2004-12-09
PRIOR APPLICATION NUMBER: PCT/GB2004/004038
PRIOR FILING DATE: 2004-09-23
PRIOR APPLICATION NUMBER: GB 0325011.5
PRIOR FILING DATE: 2003-10-27
PRIOR FILING DATE: 2003-10-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/285,649A
CURRENT FILING DATE: 2003-02-07
PRIOR APPLICATION NUMBER: US 08/984,099
PRIOR FILING DATE: 1997-12-03
PRIOR APPLICATION NUMBER: PCT/US96/09897
PRIOR FILING DATE: 1996-06-07
PRIOR PILING DATE: 1996-06-07
PRIOR APPLICATION NUMBER: US 08/480,178
PRIOR FILING DATE: 1995-06-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: McBride, Kevin
APPLICANT: Stalker, David M.
APPLICANT: Pear, Julis
APPLICANT: Perez-Grau, Luis
TITLE OF INVENTION: COTTON FIBER TRANSCRIPTIONAL FACTORS
FILE REFERENCE: 15615/03/US
                                                                                                                                                                       APPLICANT: Schneider, Joerg
PRIOR APPLICATION NUMBER: GB 0322637.0 PRIOR FILING DATE: 2003-09-26
                                                                                                                                                         FILE REFERENCE: 3742.1001-000
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TYPE: PRT
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PRIOR FILING DATE: 2002-05-20
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5; Conserva
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5. US20050175627A1
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Pred. No. 7.2e+02;
1; Mismatches
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Pred. No. 8.5e+02;
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RESULT 24
US-10-430-685-95
US-10-430-685-95
; Sequence 95, Application US/10430685
; Publication No. US20040039543A1
; GENERAL INFORMATION:
; GENERAL INFORMATION:
; APPLICANT: KECK, Peter
; TITLE OF INVENTION: COMPUTER METHOD AND APPARATUS FOR CLASSIFYING OBJECTS
; FILE REFERENCE: 63040-010210
; FILE REFERENCE: 63040-010210
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; SEO ID NO 95
; LENGTH: 17
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-430-685-95
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; OTHER INFORMATION: peptide from pol pool
US-11-008-653-128
                                                                                                                                                                                                          APPLICANT: PILLUTLA, RENUKA
APPLICANT: BRISSETTE, RENEE
APPLICANT: BLUME, ARTHUR J.
APPLICANT: SCHAFFER, LAUGE
APPLICANT: GCHAFFER, VAKOB
APPLICANT: GRANDT, JAKOB
APPLICANT: SPETZLER, JANE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2003-09-24
NUMBER OF SEQ ID NOS: 174
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 128
LENGTH: 20
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                   Sequence 51, Application US/09962756 Publication No. US20030195147A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 28.9%;
Best Local Similarity 66.7%;
Matches 6; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/430,685
CURRENT FILING DATE: 2003-05-06
PRIOR APPLICATION NUMBER: PCT/US01/44000
PRIOR FILING DATE: 2001-11-06
PRIOR APPLICATION NUMBER: 60/246,196
PRIOR FILING DATE: 2000-11-06
NUMBER OF SEQ ID NOS: 240
             APPLICANT: OSTERGAARD, SOREN
APPLICANT: HANSEN, PER HERTZ
TITLE OF INVENTION: INSULIN AND IGF-1 RECEPTOR AGONISTS AND ANTAGONISTS
FILE REFERENCE: 1878-4051US1
CURRENT APPLICATION NUMBER: US/09/962,756
CURRENT FILING DATE: 2001-09-24
PRIOR APPLICATION NUMBER: 09/538,038
PRIOR APPLICATION NUMBER: 09/538,038
PRIOR APPLICATION NUMBER: 09/146,127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 55.6%;
hes 5; Conservative
FILING DATE: 1998-09-02
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BLUME, ARTHUR J.
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GOLDSTEIN, NEIL I.
SPETZLER, JANE
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Pred. No. 8.5e+02;
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NUMBER OF SEQ ID NOS: 2227
SOCTWARE: PatentIn Ver. 2.1
SEQ ID NO 51
LENGTH: 21
TYPE: PRT
ORGANISM: Artificial Sequence
Search completed: January 26, 2006, 08:38:39 Job time : 63.75 secs
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                                                                                                                                                                                         ; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: peptide
US-09-962-756-51
                                                                 밁
                                                                                                                          Query Match 28.9%;
Best Local Similarity 37.5%;
Matches 6; Conservative
                                                                                              3 PHPTNIHKYLVCESVN 18
                                                             PHGSNFYDWFV-EAIN
                                                                 21
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Pred. No. 1.
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   of hits satisfying chosen parameters:
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1: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*

6: /cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*

7: /cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*

8: /cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*
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    10829074 residues
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US-11-045-024-12063
US-11-045-024-12063
US-11-045-024-12140
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US-11-038-980-3
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US-11-038-980-9
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US-11-038-980-10
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US-11-038-980-10
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US-11-038-980-10
US-11-038-980-10
US-11-045-024-123
US-11-045-024-134-18
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US-11-045-024-4340
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3294, Ap

12085, A

3376, Ap

10215, A

10215, A

10216, A

103140, A

10416, A

10516,  US-11-045-024-3222
US-11-045-024-1322
US-11-045-024-1299
US-11-045-024-1299
US-11-045-024-207
US-11-045-024-207
US-11-045-024-1298
US-11-045-024-1298
US-11-045-024-1375
US-11-045-024-1375
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13294, A.
13294, A.
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Sequence 10214, Application US/11045024
Publication No. US20050271676A1
GENERAL INFORMATION:
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PRIOR FILING DATE: 1993-08-06
PRIOR PELICATION NUMBER: US 08/159,184
PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR FILING DATE: 1993-11-29
PRIOR PELICATION NUMBER: US 08/205,713
PRIOR FILING DATE: 1994-03-04
PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
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PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
PRIOR FILING DATE: 1993-03-05
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR FILING DATE: 1993-06-04
PRIOR PILING DATE: 1993-08-06
PRIOR FILING DATE: 1993-08-06
PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR APPLICATION NUMBER: US 08/205,713
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3294
LENGTH: 10
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APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
APPLICANT: Livingston, Brian
APPLICANT: Chesnut, Robert
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CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
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TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060_0040007
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Chesnut, Robert
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Celis, Esteban
Celis, Esteban
Kubo, Ralph
                                     Baker, Denise Marie
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Pred. No. 11;
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US-11-140-417-18
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Sequence 18,
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RESULT 3
US-11-045-024-12085
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CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR FILING DATE: 1993-08-04
PRIOR PPLICATION NUMBER: US 08/103,396
PRIOR PILING DATE: 1993-08-06
PRIOR PILING DATE: 1993-08-06
PRIOR PILING DATE: 1993-10-29
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
                  PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR FILING DATE: 1993-06-04
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR FILING DATE: 1993-08-06
PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
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Best Local
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APPLICANT:
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TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
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APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.004
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US 08/205,713

    Mismatches

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Pred. No. 11;
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; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-3376
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PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 12085
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SEQ ID NO 3376
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CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
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PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR FILING DATE: 1993-08-06
PRIOR FILING DATE: 1993-08-06
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PRIOR APPLICATION NUMBER: US 08/347,610
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                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 08/159,184
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IPHPAGLKK 10
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Pred. No.
                                                                                           Score 32; DE
Pred. No. 13;
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Best Local Similarity
Thes 5; Conservi
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; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-10191
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PRIOR FILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: FASESEQ for Windows Version 4.0
SEQ ID NO 10191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL
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FILE REFERENCE: 2060.0040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
                                                                                                          TITLE OF INVENTION: Inducing Cellular Responses TITLE OF INVENTION: Virus-1 Using Peptide and Particle Of Invention of Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Particle Property of Part
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CURRENT FILING DATE: 2005-01-28
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FILE REFERENCE: 2060.0040007
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FILING DATE: 1993-03-05
APPLICATION NUMBER: US 08/073,205
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APPLICATION NUMBER: US 08/205,713
FILING DATE: 1994-03-04
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APPLICATION NUMBER: US 08/159,339
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APPLICATION NUMBER: US 08/103,396
FILING DATE: 1993-08-06
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Grey, Howard M.
                                                                                                                                                                                         Epimmune Inc.
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Chesnut, Robert
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Livingston, Brian
Chesnut, Robert
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Celis, Esteban
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Pred. No. 13;
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Nucleic A
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US-11-045-024-12063
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Publication No. US20050271676A1
SOFTWARE: FastSEQ for Windows Version SEQ ID NO 12063
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PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR FILING DATE: 1993-06-04
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR FILING DATE: 1993-08-06
PRIOR FILING DATE: 1993-08-06
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PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
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CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR FILING DATE: 1999-10-05
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                                      PRIOR FILING DATE: 1994-12-01 NUMBER OF SEQ ID NOS: 14528
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                                                                             PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
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PRIOR FILING DATE: 1993-03-05
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APPLICATION NUMBER: US 08/103,396
FILING DATE: 1993-08-06
APPLICATION NUMBER: US 08/159,184
FILING DATE: 1993-11-29
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APPLICATION NUMBER: US 08/159,339
FILING DATE: 1993-11-29
APPLICATION NUMBER: US 08/205,713
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APPLICATION NUMBER: US 08/073,205
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Grey, Howard M.
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Pred. No.
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US-11-045-024-13140

Sequence 13140, Application US/11045024 Publication No. US20050271676A1 GENERAL INFORMATION:

APPLICANT: Sette, Alessandro APPLICANT: Sidney, John

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TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 2005-01-28
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR FILING DATE: 1993-08-04
PRIOR FILING DATE: 1993-06-04
PRIOR FILING DATE: 1993-06-04
PRIOR FILING DATE: 1993-06-06
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,184
PRIOR PILING DATE: 1993-11-29
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 12086
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Publication No. US20050271676A1
GENERAL INFORMATION:
                                                                             Best Local
Matches
                                                                                                                Query Match
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                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
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Local Similarity 55.6%;
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  IPHPAGLKK 11
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Celis,
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 13140
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                                                                   SEQ ID NO 3
                                                                                                                   APPLICANT: Michel Perricaudet
TITLE OF INVENTION: Targeted Adenovirus Vectors For Delivery Of Heterologous Genes
TITLE OF INVENTION: Targeted Adenovirus Vectors For Delivery Of Heterologous Genes
TILE REFERENCE: p26,992-C USA:
CURRENT FILING DATE: 2005-01-20
PRIOR APPLICATION NUMBER: US 09/791,524
PRIOR FILING DATE: 2001-02-22
PRIOR APPLICATION NUMBER: PCT/IB99/01524
PRIOR FILING DATE: 1999-08-27
PRIOR APPLICATION NUMBER: US 60/098,028
PRIOR FILING DATE: 1998-08-27
PRIOR FILING DATE: 1998-08-27
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APPLICANT: Emmanuelle Vigne
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PRIOR FILING DATE: 1993-11-29
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PRIOR APPLICATION NUMBER: US (
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PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
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CURRENT FILING DATE: 2005-01-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US 08/347,610
ORGANISM: Adenovirus
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APPLICATION NUMBER: US 08/103,396
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Patrice Yeh
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Pred. No.
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Best Local
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                              PRIOR APPLICATION NUMBER: US 09/791,524
PRIOR FILING DATE: 2001-02-22
PRIOR APPLICATION NUMBER: PCT/IB99/01524
PRIOR FILING DATE: 1999-08-27
PRIOR APPLICATION NUMBER: US 60/098,028
PRIOR FILING DATE: 1998-08-27
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                                                                                                                              APPLICANT: Patrice Yeh
APPLICANT: Michel Perricaudet
TITLE OF INVENTION: Targeted Adenovirus Vectors For Delivery Of Heterologous Genes
FILE REFERENCE: P26, 992-C USA
CURRENT APPLICATION NUMBER: US/11/038,980
CURRENT FILING DATE: 2005-01-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: PCT/IB99/01524
PRIOR FILING DATE: 1999-08-27
PRIOR APPLICATION NUMBER: US 60/098,028
PRIOR FILING DATE: 1998-08-27
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TYPE: PRT
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WARE: PatentIn version 3.2
              FILING DATE: 1998-08-27
OF SEQ ID NOS: 165
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Jean-Francois De
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Patrice Yeh
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Pred. No. 29;
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APPLICANT: Jean-Francois Dedieu
APPLICANT: Martine Latta
APPLICANT: Martine Latta
APPLICANT: Martine Latta
APPLICANT: Michel Perricaudet
TITLE OF INVENTION: Targeted Adenovirus Vectors For Delivery Of Heterologous Genes
FILE REFERENCE: P26,992-C USA
CURRENT FILING DATE: 2005-01-20
PRIOR APPLICATION NUMBER: US/11/038,980
CURRENT FILING DATE: 2001-02-22
PRIOR APPLICATION NUMBER: US 09/791,524
PRIOR APPLICATION NUMBER: PCT/IB99/01524
PRIOR APPLICATION NUMBER: PCT/IB99/01524
PRIOR APPLICATION NUMBER: US 60/098,028
PRIOR FILING DATE: 1999-08-27
NUMBER OF SEQ ID NOS: 165
SOFTWARE: PatentIn version 3.2
SEQ ID NO 10
LENGTH: 21
TYPE: PRT
ORGANISM: Adenovirus
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US-10-859-643-123
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Publication No.
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CURRENT APPLICATION NUMBER: US/10/859,643
CURRENT FILING DATE: 2004-06-02
PRIOR APPLICATION NUMBER: US 10/005,480
PRIOR FILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 765
SOFTWARE: FASTSEQ for Windows Version 4.0
                                                                                                        APPLICANT: Morrison, Karen Jane Meyrick
APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: Nucleic Acid and Corresponding Protein
TITLE OF INVENTION: Entitled 161P2F10B Useful in Treatment
TITLE OF INVENTION: Cancer
FILE REFERENCE: 511582006203
                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                      APPLICANT: Challita-Eid, Pia M. APPLICANT: Raitano, Arthur B. APPLICANT: Faris, Mary
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                                                                                                                                                                                                                   Raitano, Arthur B.
Faris, Mary
Hubert, Rene S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Emmanuelle Vigne
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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Pred. No.
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RESULT 16
US-11-097-912-123
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APPLICANT: Raitano, Arthur B.
APPLICANT: Faris, Mary
APPLICANT: Hubert, Rene S.
APPLICANT: Morrison, Karen Jane
APPLICANT: Jakobovits, Aya
                                                                                                                                                                                                                                                                                                                                    Sequence 123, Application US/11097912 Publication No. US20050265921A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 10/005,480
PRIOR FILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 765
SOFTWARE: FASUSEQ for Windows Version 4.0
SEQ ID NO 123
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
APPLICANT: Morrison, Karen Jane Meyrick
APPLICANT: Jakobovits, Aya
APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: NUCLERIC ACID AND CORRESPONDING PROTEIN ENTITLED 161P2F10B
TITLE OF INVENTION: USEFUL IN TREATMENT AND DETECTION OF CANCER
FILE REFERENCE: 511582006204
CURRENT APPLICATION NUMBER: U$/11/097,912
CURRENT FILING DATE: 2005-04-01
PRIOR APPLICATION NUMBER: US 10/062,109
PRIOR APPLICATION NUMBER: US 10/062,109
PRIOR APPLICATION NUMBER: US 10/05,480
PRIOR FILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Challita-Eid, Pia M. APPLICANT: Raitano, Arthur B. APPLICANT: Faris, Mary APPLICANT: Hubert, Rene S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/11/097,864
CURRENT FILLING DATE: 2005-04-01
PRIOR APPLICATION NUMBER: US 10/662,109
PRIOR FILING DATE: 2002-01-31
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TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 161P2F10B
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF CANCER
FILE REFERENCE: 511582006205
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TYPE: PRT
ORGANISM: Homo Sapien
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Morrison, Karen Jane Meyrick
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75.0%;
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Pred. No. 5.9e+04;
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Pred. No. 5.9e+04;
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; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-859-643-164
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; ORGANISM: Homo Sapien
US-11-097-912-123
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Publication No. US20050265924A1
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 164
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Publication No. US20060002993A1
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Matches 6; Conserv
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                                                              FILE REFERENCE: 511582006205
CURRENT APPLICATION NUMBER: US/11/097,864
CURRENT FILING DATE: 2005-04-01
PRIOR APPLICATION NUMBER: US 10/062,109
PRIOR FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Morrison, Karen Jane Meyrick
APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: Nucleic Acid and Corresponding Protein
TITLE OF INVENTION: Entitled 161P2F10B Useful in Treatment and Detection of
TITLE OF INVENTION: Cancer
PRIOR APPLICATION NUMBER: US 10/005,480 PRIOR FILING DATE: 2001-11-07 NUMBER OF SEQ ID NOS: 765
                                                                                                                                                                    APPLICANT: Hubert, Rene S.
APPLICANT: MOTTISON, Karen Jane Meyrick
APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN NAMED 161P2F10B
TITLE OF INVENTION: USEFUL IN THE TREATMENT AND DETECTION OF CANCER
FILE DEFENDED TO CONCERN IN THE TREATMENT AND DETECTION OF CANCER
                                                                                                                                                                                                                                                                                                        APPLICANT: Challita-Eid, Pia M. APPLICANT: Raitano, Arthur B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/859,643
CURRENT FILING DATE: 2004-06-02
PRIOR APPLICATION NUMBER: US 10/005,480
PRIOR FILING DATE: 2001-11-07
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Faris, Mary
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Faris, Mary
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75.0%;
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75.0%;
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Pred. No. 29
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Pred. No. 5.9e+04;
1; Mismatches 0
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; ORGANISM: Homo Sapien
US-11-097-912-164
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FILE REFERENCE: 10271-146

CURRENT APPLICATION NUMBER: US/10/966,483

CURRENT FILING DATE: 2004-10-15

PRIOR APPLICATION NUMBER: US 60/511,919

PRIOR FILING DATE: 2003-10-15

PRIOR APPLICATION NUMBER: US 60/511,719

PRIOR FILING DATE: 2003-10-15

PRIOR FILING DATE: 2003-10-15

PRIOR APPLICATION NUMBER: US 60/532,666

PRIOR APPLICATION NUMBER: US 60/532,666

PRIOR FILING DATE: 2003-12-24
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Best Local Similarity
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 164
                                                                                                                                                                                                                                                                                                                                Sequence 17, Application US/10966483 Publication No. US20050281783A1
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Best Local :
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                                                                                                                                                                                                      APPLICANT: Kinch, Michael S.
APPLICANT: Kiener, Peter A.
APPLICANT: Bruckheimer, Elizabeth
APPLICANT: Dubensky, Jr. Thomas W.
APPLICANT: Cook, David N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 511582006204
CURRENT APPLICATION NUMBER: US/11/097,912
CURRENT FILING DATE: 2005-04-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: MOTTISON, Karen Jane Meyrick
APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: NUCLEIC ACID AND CORRESPONDING PROTEIN ENTITLED 161P2F10B
TITLE OF INVENTION: USEFUL IN TREATMENT AND DETECTION OF CANCER
                                                                                                                                                                                    TITLE OF INVENTION: LISTERIA-BASED EphA2 VACCINES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 10/005,480 PRIOR FILING DATE: 2001-11-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 10/062,109 PRIOR FILING DATE: 2002-01-31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Challita-Eid, Pia M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 10
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 IPHRPTNV 10
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Faris, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hubert, Rene S.
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75.0%;
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75.0%;
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Pred. No. 2
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Pred. No. 29;
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"hes 5; Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-506-443A-18
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LENGTH: 14
TYPE: PRT
                          GENERAL INFORMATION:
APPLICANT: Sahin Dr., Ugur
APPLICANT: Tureci Dr., Ozlem
APPLICANT: Tureci Dr., Michael
APPLICANT: KOSlowski Dr., Michael
APPLICANT: KOSLOwski Dr., Michael
TITLE OF INVENTION: Genetic Products Differentially Expressed in Tumors and Use There
FILE REFERENCE: 342-3PCT
CURRENT APPLICATION NUMBER: US/10/506,443A
CURRENT FILING DATE: 2004-09-01
NUMBER OF SEQ ID NOS: 100
                                                                                                                                                                                                                                                                                                                                                          Sequence 18, Application US/10506443A Publication No. US20060013817A1
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Best Local Similarity
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Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Van Rompaey, Luc
APPLICANT: Tomme, Peter H. M.
APPLICANT: Tomme, Peter H. M.
TITLE OP INVENTION: Methods and Compositions To Promote Bone Homeostasis
FILE REFERENCE: P27,927-D USA
CURRENT APPLICATION NUMBER: US/11/166,412
CURRENT FILING DATE: 2005-06-24
PRIOR APPLICATION NUMBER: 60/582,704
PRIOR APPLICATION NUMBER: 60/630,449
PRIOR APPLICATION NUMBER: 60/630,449
PRIOR APPLICATION NUMBER: 60/673,206
PRIOR FILING DATE: 2004-11-23
PRIOR APPLICATION NUMBER: 60/673,206
PRIOR FILING DATE: 2005-04-20
NUMBER: 05 SEQ ID NOS: 231
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PRIOR FILING DATE: 2004-10-01
PRIOR APPLICATION NUMBER:
PRIOR FILING DATE: 2004-10-07
NUMBER OF SEQ ID NOS: 72
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
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PatentIn version 3.1
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nilarity 41.7%;
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Pred. No. 46;
3; Mismatches
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Pred. No. 50;
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Query Match
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; LENGTH: 17
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-506-443A-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Description of Artificial Sequence: Peptide; OTHER INFORMATION: synthesized from amino acids with no genetic; OTHER INFORMATION: material as source US-10-723-207-71
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US-11-045-024-1627
                                                                                                                                                                                                                                                             Sequence 1627, Application US/11045024 Publication No. US20050271676A1 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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Best Local Similarity
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CURRENT APPLICATION NUMBER: US/10/723,207
CURRENT FILING DATE: 2003-11-24
PRIOR APPLICATION NUMBER: 09/701,623
PRIOR FILING DATE: 2000-12-01
PRIOR PILING DATE: 2000-12-01
PRIOR FILING DATE: 2000-12-01
PRIOR FILING DATE: 1099-06-21
PRIOR FILING DATE: 1999-06-21
               TITLE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions FILE REFERENCE: 2060.0040007
                                                                                          APPLICANT:
                                                                                                                                                 APPLICANT:
APPLICANT:
                                                                                                                                                                                   APPLICANT: Sette, Alessandro
APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
APPLICANT: Livingston, Brian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 91
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APPLICANT: Walfield,
                                                                          APPLICANT:
                                                                                                                               APPLICANT:
CURRENT APPLICATION NUMBER: US/11/045,024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
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                                                                          Epimmune Inc.
                                                                                          Kubo, Ralph
Grey, Howard M.
                                                                                                                            Baker, Denise Marie
Celis, Esteban
                                                                                                                                                                     Chesnut, Robert
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Leld, Alan M
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33.3%;
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Pred. No. 60;
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TITLE OF INVENTION: Utrus-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT APPLICATION NUMBER: US/21/045,024
CURRENT FILING DATE: 2005.01-28
PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR APPLICATION NUMBER: US 08/103,396
PRIOR APPLICATION NUMBER: US 08/103,396
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PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1994-12-01
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US-11-045-024-4340
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TYPE; PRT
; ORGANISM; HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-1627
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SEQ ID NO 1627
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APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
APPLICANT: Livingston, Brian
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PRIOR FILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
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PRIOR APPLICATION NUMBER: US 09/412,863
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR FILING DATE: 1993-03-05
PRIOR APPLICATION NUMBER: US 08/073,205
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FILING DATE: 1993-08-06
APPLICATION NUMBER: US 08/159,184
FILING DATE: 1993-11-29
APPLICATION NUMBER: US 08/159,339
FILING DATE: 1993-11-29
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FastSEQ for Windows Version 4.0
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Pred. No. 5.9e
1; Mismatches
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Ig H chain V-D-Jr
hypothetical TEL/M
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beta 3-adrenergic
glycogen(starch) s T-cell receptor be RNA-directed RNA p venombin B (EC 3.4 iodothronine 5-mo 15K protein B - raphosphatidylinosit alpha-conotoxin Cn thyroglobulin - pithyroglobulin - pithyroglobulin - sh trehalase inhibito phospheenolpyruvat cytochrome-c oxida hypothetical prote fibrinogenolytic p f-cell receptor be T-cell receptor al Ig heavy chain CRD cell surface glyco hemocyanin chain 3 protein QA300050 -T-cell surface gly quinaldine oxidore Ig heavy chain DJ T-cell receptor be RNA-directed RNA p venombin B (EC 3.4 Iombricine kinase
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gluten - wheat glandular kallikre interferon alpha r cystatin CI-4a - m pimeloyl-CoA synth T-cell receptor be calmodulin, vasoac GTP-binding protei entactin/nidogen -chondroitin sulfat gluten - wheat photosystem II ch fimbrial antigen intracrystalline gastrin-releasing Ig H chain V-D-J defensin AMP2 catechol 1,2-c photosystem II pho defensin AMP2 - Da neurotoxin Tx3 metallothionein urinary tract storing H chain V-D-J pyrE leader peptid
extension protein actin-binding prot protein QA300042 -T antigen variant fibrinogenolytic 22K protein - Lym pyrrhocoricin large granule L4 c actin 7 intracrystalline insertion element antigen variant antigen variant chrome-c oxida leader peptid MP2 - Da ,2-dioxy ston D-J r chl en C ne c Ą

hypothetical prote hypothetical prote arylhydroxamic aci

collagen alpha

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Mol. Gen. Genet. 242, 455-460, 1994
A;Title: A luxAB transcriptional fusion to
A;Reference number: S42587; MUID:94166755;
A;Accession: S42587
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: A60929
R;Kohler-Staub, D.; Hartmans, S.; Gaelli, R.; Suter, F.; Leisinger, J. Gen. Microbiol. 132, 2837-2843, 1986
A;Title: Evidence for identical dichloromethane dehalogenases in di
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     dichloromethane dehalogenase (EC 4.5.1.3) - Hyphomicrobium sp. (ATCC 43129) (fragment)
                                                                                                          A; Molecule type: DNA
A; Residues: 1-11 <GU
                                                                                                                                                                                                                                                      celf protein - Escherichia coli (fragment)
C;Species: Escherichia coli
C;Date: 25-Dec-1994 #sequence_revision 10-Nov-1995 #text_change 10-Nov-1995
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C;Keywords: carbon-halide lyase
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J. Gen. Microbiol. 132, 2837-2843, 1986
A;Title: Evidence for identical dichloromethane dehalogenases in different methylotroph:
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A;Accession: A60929
                                                       A;Gene:
                                                                                         A; Cross-references:
                                                                                                                                                                                                                     R;Guzzo, A.; DuBow, M.S
                                                                                                                                                                                                                                      C; Accession: S42587
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;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 09-Jul-2004
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R;Tomb, J.F.; White, O.; Kerlavage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, R. Peterson, S.; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H.G.; Glodek, A.; McKerson, J.D.; Kelley, J.M.; Cotton, M.D.; Weidman, J.M.; Fujii, C.; Bowman, C.; Watthey, Nature 389, 539-547, 1997
A;Authors: Wallin, B.; Hayes, W.S.; Borodovsky, M.; Karpk, P.D.; Smith, H.O.; Fraser, A;Title: The complete genome sequence of the gastric pathogen Helicobacter pylori.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: protein
A;Residues: 1-5;6-10;11-18 <INO>
A;Cross-references: UNIPARC:UPI000017B3BC; UNIPARC:UPI000017B3BD; UNIPARC:UPI000017B3BE
A;Experimental source: strain var. macrosporus
C;Keywords: aspartic proteinase; hydrolase
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R;Inoue, H.; Hayashi,
Eur. J. Biochem. 237,
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R;Cooke, R.J.; Bjoernestedt, R.; Douglas, K.T.; McKie, J.H.; King, M.D.; Coles, B.; Ketl Biochem. J. 302, 383-390, 1994
A;Title: Photoaffinity labelling of the active site of the rat glutathione transferases A;Reference number: S55307; MUID:94379965; PMID:8092989
                                                                                     glutathione transferase 3-3 - rat (fragments)
G;Species: Rattus norvegicus (Norway rat)
C;Date: 27-Oct-1955 #sequence_revision 03-Nov-1995 #text_change 07-May-1999
C;Accession: S55307
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              aspergillopepsin I (EC 3.4.23.18) - Aspergillus niger (fragments)
N;Alternate names: aspergillopepsinogen I
C;Species: Aspergillus niger
C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 17-Mar-1999
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;Date: 09-Aug-1997 #sequence_revision 09-Aug-1997
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Pred. No. 1e+03;
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A; Residues: 1-20 <STO>
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                                                                                                                                                                                                                                                                                                                                                                                                                                 hypothetical protein At2g31090 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004 C;Accession: D84716
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A;Molecule type: protein
A;Residues: 1-16 <COO>
RESULT 9
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A;Reference number: A84420; MUID:20083487; PMID:10617197
A;Accession: D84716
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A;Residues: 1-19 <DAV>
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Gen. Virol. 73, 2709-2713, 1992

Final Control of genes encoding two capsid proteins Reference number: PQ0544; MUID:93019027; PMID:1328483

Accession: PQ0548
                                                                                                                                                                                     Gene: At2g31090
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;Experimental source: strain 17
                                                                                                                                                                                                                                      Cross-references: UNIPROT:082275; UNIPARC:UPI000017A6CB; GB:AE002093; NID:g3746066;
                                                                                                                                                                                                                                                                                           Status: preliminary
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                                                                                                                                                    Query Match
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Best Local
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Date: 03-Feb-1994 #sequence_revision
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Best Local :
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Pred. No. 1.7e
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Pred. No. 1.1e+03;
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                Superfamily: insulin
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R;Bergman, T.; Agerberth, B.;
FEBS Lett. 283, 100-103, 1991
A;Title: Direct analysis of p
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C;Date: 19-Mar-1997 #sequence_revision 16-Jul-1999 #text
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C;Keywords:
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C;Species: Vespa orientalis (oriental hornet)
C;Date: 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change 09-Jul-2004
C;Date: 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change 09-Jul-2004
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Infect. Immun. 57, 1865-1867, 1989
A;Title: Group A streptococcal pyrogenic exotoxin (scarlet A;Reference number: A60108; MUID:89254013; PMID:2498210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           exotoxin A - Streptococcus pyogenes (strain C203.S) N;Alternate names: blastogen A; scarlet fever toxin C;Species: Streptococcus pyogenes
                    A; Molecule type: protein A; Residues: 9-17 < FEB2>
                                                                                                                              A; Molecule type: protein A; Residues: 1-8 < FEB1>
                                                                                                                                                                       A;Accession: S15778
A;Status: preliminary
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C;Superfamily: enterotoxin B
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                                                              A;Status: preliminary
                                                                                  A; Accession: S15779
                                                                                                       A; Cross-references:
                                                                                                                                                                                                                 A; Title: Direct analysis of A; Reference number: S15778;
                                                                                                                                                                                                                                                                                                                                                                         insulin chain B - bovine (fragments)
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Cross-references: UNIPARC:UPI000015BC0B;
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                                                                                                                                                                                                                 peptides and amino acids from MUID:91243852; PMID:2037061
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Pred. No. 2.8e+05;
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2.8e+05;
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R;Baert, J.L.; Britel, M.; Sautiere, P.; Malecha, J. Eur. J. Biochem. 209, 563-569, 1992
A;Title: Ovohemerythrin, a major 14-kDa yolk protein distinct A;Reference number: S29264; MUID:93049299; PMID:1425663
A;Accession: S29264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N;Alternate names: 14K yolk protein
C;Species: Theromyzon tessulatum (duck leech)
C;Date: 19-Mar_1997 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
Mol. Cell. Biol. 4,
A;Title: Isolation a
A;Reference number:
                                                                                                                        RESULT 14
I50153
                                                                                                                                                                                                                                                                                                                                                                                 R;Tsugita, A.; Kamo, M.; Kawakami, M.; Ohki, Y. submitted to JIPID, December 1995
A;Description: Two dimensional electrophoresis of A;Reference number: PN0173
A;Accession: PN0175
                                                                                                                                                                                                                                                                                                                                                                                                                                                           glutathione transferase (EC 2.5.1.18) 1 - Arabidopsis thaliana (fragment) C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 22-Dec-1995 #sequence_revision 08-Feb-1996 #text_change 23-Mar-2001 C;Accession: PN0175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 13
PN0175
                                          R; Chang,
                                                          alpha-actin - chicken (fragment)
C;Species: Gallus gallus (chicken)
C;Date: 13-Sep-1996 #sequence_revision
C;Accession: I50153
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A;Residues: 1-18 <BAE>
                                                         Accession:
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Similarity 50.0%;
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                                                                        13-Sep-1996 #text_change
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No. 2e+03;
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PMID:6513927
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2.1e+03
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                                 PH1604
                                               RESULT 17
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A;Note: sequence extracted from NCBI backbone (NCBIP:107297)
C;Superfamily: trypsin; trypsin homology
C;Keywords: hydrolase; serine proteinase; venom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: A45655
R;Chiou, S.H.; Hung, C.C.; Lin, C.W.
Biochem. Int. 26, 105-112, 1992
A;Title: Isolation of a crotalase-like protease with alpha-fibrinogenase activity from A;Reference number: A45655; MUID:92313365; PMID:1616487
A;Accession: A45655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-19 <CHA>
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S38736
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A45655
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C;Superfamily: Actin
                                                                                                                                                                                                                             FEBS_Lett. 332, 243-246, 1993
A;Title: Purification and antipathogenic activity of lipid A;Reference number: S38736; MUID:94009709; PMID:8405465
                                                                                                                                                                                                                                                                                                                         lipid transfer protein al - Arabidopsis thaliana (fragment) C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 19-May-1994 #sequence_revision 19-Jan-1996 #text_ch
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C;Date: 17-Feb-1994 #sequence_revision 17-Feb-1994 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Crotalus atrox serine proteinase (EC 3.4.21.-) - western diamondback rattlesnake N,Alternate names: alpha-fibrinogenase; thrombin-like proteinase
                                                                                                                                                  A;Residues: 1-13 <SEG>
A;Cross-references: UNIPARC:UPI000017AFCF
                                                                                                                                                                                                                                                                                      C; Accession: $38736
R; Segura, A.; Moreno, M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:Q9PS55; UNIPARC:UPI00000FB75C A;Experimental source: venom
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A; Residues: 1-20 < CHI>
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Pred. No. 2.
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Pred. No. 2.3e+03;
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V-D-J region Mus musculus

(wild-type clone 327)
(house mouse)

mouse

(fragment)

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R;Pearson, L.; Meagher, R.B.
Plant Mol. Biol. 14, 513-526, 1990
A;Title: Diverse soybean actin transcripts contain a large
A;Reference number: $15754; MUID:91346640; PMID:2102831
A;Accession: $15754
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C;Accession: PH1604
R;Levinson, D.A.; Campos-Torres, J.; Leder,
J. Exp. Med. 178, 317-329, 1993
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A; Residues: 1-17 < PEA>
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C;Date: 04-Dec-1992 #sequence revision 04-Dec-1992 #text_change 05-Oct-2004
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A;Experimental source: bone marrow pre-B lymphocyte
C;Keywords: immunoglobulin
                                                                                                                                   A;Residues: 1-17 <MEY>
A;Cross-references: UNIPARC:UPI000017AD3D
                                                                                                                                                        A; Molecule type: protein A; Residues: 1-17 < MEY>
                                                                                                                                                                                                        A;Reference number: S63502; MUID:96096737; PMID:8529639 A;Accession: S63503
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: UNIPROT:P15986; UNIPARC:UPI0000125427; EMBL:X17119; NID:g18525; PID
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A; Residues: 1-16 <LEV>
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                                                                                      Query Match
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                                     7 NIHKYL 12
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Similarity 44.4%;
4; Conservative 1
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llarity 50.0%;
Conservative
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Pred. No. 2.9e+03;
2; Mismatches 2;
                                                                   Score 23; DB 2;
Pred. No. 2.9e+03;
3; Mismatches 0
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Pred. No. 2.7e+03;
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                                                                                                   Length 17;
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A58589
                                 A;Reference number: A37196;
A;Accession: B37196
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                                                 A;Title: Primary structure and biological activity of bradykinin A;Reference number: A37196; MUID:90351557; PMID:2386615

    Protein Chem.

Molecule type: prote
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protein <CIN>

9, 221-227, 1990

potentiating

peptides

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A;Status: preliminary
A;Molecule type: prote
A;Residues: 1-10 <ALT>
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A;Note: sequence confirmed by chemical synthesis
C;Comment: This alpha-conotoxin, as an acetylcholine receptor inhibitor,
C;Superfamily: alpha-conotoxin
C;Keywords: acetylcholine receptor inhibitor; amidated carboxyl end; hydr
F;3/Modified site: 4-hydroxyproline (Pro) #status experimental
F;4-10,5-18/Disulfide bonds: #status experimental
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A;Title: alpha-Conotoxin EI, a new nicotinic acetylcholine receptor antagonist with A;Reference number: A58589; MUID:96062516; PMID:7578057
A;Accession: A58589
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c;Species: Conus ermineus (ermine cone)
C;Date: 10-Sep1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: A58589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Title: Characterisation of peptide-N4-(N-acetyl-beta-glucosaminyl)asparagine
A;Reference number: A59272; MUID:98181894; PMID:9523720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eur. J. Biochem. 252, 118-123, 1998
A;Title: Characterisation of peptide
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Best Local
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Similarity 42.9%;
3; Conservation
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Pred. No. 2.4e+03;
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Pred. No. 3.7e+03;
2; Mismatches 4
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RESULT 25
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C;Keywords: pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
mannose-1-phosphate guanylyltransferase (EC 2.7.7.13) 43K alpha chain - N;Alternate names: GDP-mannose pyrophosphorylase 43K alpha chain C;Species: Sus scrofa domestica (domestic pig)
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A;Title: Six novel tachykinin- and bombesin-related peptides from the skin of the Austra
A:Reference number: A60409; MUID:90287814; PMID:2356157
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C;Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;1/Modified site: amidated carboxyl end (Met) #status experimental
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Peptides 11, 299-304, 1990
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C;Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence_revision 30-Jan-1993 #text_change 16-Aug-2004
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C;Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence_revision 30-Jan-1993 #text_change 16-Aug-2004
C;Accession: B60409
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A;Residues: 1-11 <SIM>
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Conservative (
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C;Date: 25-Feb-1994 #sequence_revision 12-Aug-1996 #text_change 12-Aug-1996 C;Accession: B47415  
R;Szumilo, T.; Drake, R.R.; York, J.L.; Elbein, A.D. J. Bioli. Chem. 268, 17943-17950, 1993  
A;Title: GDP-mannose pyrophosphorylase. Purification to homogeneity, propert A;Reference number: A47415; MUID:93352609; PMID:7688733  
A;Accession: B47415
                                                                                                                                                                                                                                                                   A;Description: generates GDP-mannose and pyrophosphate from mannose-1-phosphate and GTP A;Note: also catalyzes synthesis of GDP-glucose from glucose-1-phosphate (EC 2.7.7.34 ac C;Keywords: blocked amino end; nucleotidyltransferase
                                                                                                                                                                                                                                                                                                                                          A;Cross-references: UNIPARC:UPI000017C470
A;Experimental source: liver
C;Complex: The enzyme appears to be a hetc
C;Function:
Search completed: January 26, 2006, 08:05:05
Job time : 11.5 sècs
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A;Residues: 1-13 <SZU>
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Kohler-Staub D., Hartmans S., Gaelli R.,
Kohler-Staub D., Hartmans S., Gaelli R.,
Evidence for identical dichloromethane
methylotrophic bacteria.";
- ~~ microbiol. 132:2837-2843(1986).
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Q1-MAR-2004 (
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Kohler-Staub D., Hartmans S., Gaelli R.,
"Evidence for identical dichloromethane of methylotrophic bacteria.";
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QB2439;
QB2439;
QB-NOV-1996 (TrEMBLrel. 01.
Q1.NOV-1996 (TrEMBLrel. 01.
Q1-JUN-2002 (TrEMBLrel. 21.
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Q76R60;
05-JUL-2004 (TrEMBLrel. 27,
05-JUL-2004 (TrEMBLrel. 27,
05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                          Name=gag;
Human T-lymphotropic virus
Human Retroid viruses; F
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NON TER
SEQUENCE
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MEDLINE-87111460; PubMed-3027244;
Hiramatsu K., Nishida J., Nairo A., Yoshika
"Molecular cloning of the closed cirular pr
leukaemia virus type I: A new open reading
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
NUCLEOTIDE SEQUENCE.
MEDLINE=85211032; PubMed=2987530;
Ratner L., Josephs S.F., Starcich
Gallo R.C., Wong-Staal F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gag protein (Fragment).
Human T-lymphotropic virus 1.
Viruses; Retroid viruses; Retroviridae; Deltaretrovirus.
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Viruses; Retroid viruses; R
NCBI TaxID=11908;
                                                                                                                                                                                                                                                           Gag protein
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                                                                                                                                     NCBI_TaxID=11908;
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J. Gen. Virol. 68:213-218(1987)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=11908;
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Pred. No.
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Best Local S
Matches 6
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Best Loc
Matches
STRAIN=OR74A;

STRAIN=OR74A;

STRAIN=OR74A;

Salvo S.E., Borkovich K.A., Selker E.U., Read N.D.,

Jaffe D., FittHugh W., Ma L.-J., Smirnov S., Purcell S., Rehman B.,

Elkins T., Engels R., Wang S., Nielsen C.B., Butler J., Endrizzi M.,

Qui D., Ianaklev P., Pedersen D., Nelson M., Washburne M.,

Selitrennikoff C.P., Kinsey J.A., Braun E.L., Zelter A., Schulte U.,

Kothe G.O., Jedd G., Mewes W., Staben C., Marcotte E., Greenberg D.,

Kothe G.O., Jedd G., Mewes W., Staben C., Marcotte E., Greenberg D.,

Kothe G.O., Jedd G., Mewes W., Staben C., Rarcett R., Greenberg D.,

Kothe G.O., Jedd G., Mewes W., Staben C., Rarcett R., Greenberg D.,

Kothe G.O., Jedd G., Mewes W., Staben C., Rarcett R., Greenberg D.,

Kothe G.O., Jedd G., Mewes W., Staben C., Rudd S., Frishman D.

Kamal M., Kamvysselis M., Mauceli E., Bielke C., Rudd S., Frishman D.

Krystofova S., Rasmussen C., Metzenberg R.L., Perkins D.D., Kroken S.

Cogoni C., Macino G., Catcheside D., Li W., Pratt R.J., Osmani S.A.,

nasauza C.C., Glass L., Orbach M.J., Berglund J., Voelker R.,

nasauza C.C., Glass L., Orbach M.J., Berglund J., Voelker R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AY810763; AAX26652.1;
Hypothetical protein.
SEQUENCE 19 AA; 2259 MW:
                                                                                                                                                                                                                                                                                          01-MAR-2004 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; M10
NON TER
SEQUENCE
                                                                                                                                                                                                                     Neurospora crassa.
Eukaryota; Fungi; Ascomycota; Pe
Sordariomycetidae; Sordariales;
                                                                                                                                                                                                                                                               Predicted protein.
Name=NCU05297.1;
                                                                                                                                                                             NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                        NCBI_TaxID=5141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schistosoma japonicum (Blood fluke).
Eukaryota, Metazoa, Platyhelminthes,
Schistosomatoidea, Schistosomatidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAY-2005 (TrEMBLrel. 30, 10-MAY-2005 (TrEMBLrel. 30, 10-MAY-2005 (TrEMBLrel. 30, Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q5C123_SCHJA
Q5C123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Nucleotide sequence analysis of a variant (HTLV-Ib) provirus with a deletion in pX-1. J. Virol. 54:781-790(1985).

EMBL; M10977; AAA46203.1; -; Genomic_DNA.
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-; mRNA.
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Pred. No. 1.2e
0; Mismatches
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Pred. No. 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FE24492FB8464550 CRC64;
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                                                                                                                                                                                                                    Pezizomycotina;
s; Sordariaceae;
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annotation updat
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4.8e+02
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Neurospora.
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RESULT
Q16244
ID 2016244
ID 201
AC Q1
DT 01
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CO NO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 3
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Best Local S
Matches 4
Homo.
NCBI_TaxID=9606;
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                                                                                                                                                                                                              01-NOV-1996 (TrEMBLrel. 01, 01-NOV-1996 (TrEMBLrel. 01, 01-MAY-1999 (TrEMBLrel. 10, STS protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                   Q16244 HUMAN
Q16244;
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-i- CAUTION: The sequence shown here is derived !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUCLEOTIDE SEQUENCE.
Hall N., Karras M., Raine J.D., Carl
Berriman M., Florens L., Janssen C.S
James K., Rutherford K., Harris B.,
James K., Rutherford K., Doggett J.,
Dogail M.A., Ormond D., Doggett J.,
Teidall M.A., Ormond D., Dogg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence up
13-SEP-2005 (TREMBLrel. 31, Last annotation
13-SEP-2005 (TREMBLREL 31, Last annotation
Hypothetical protein (Fragment).
ORFNames=PC400586.00.0;
ORFNames=PC400586.00.0;
                                                                                                                           Homo sapiens (Human)
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hypothetical protein.
NON TER 10 1
SEQUENCE 10 AA; 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hall N., Karras M., Raine J.D., Carlton J.M., Kooij T.W.A.,
Berriman M., Florens L., Janssen C.S., Pain A., Christophides G.
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,
Bidwell S.L., Rajandream M.A., Carucci D.J., Yates J.R., Kafatos
Bidwell S.L., Rajandream M.A., Carucci D.J., Yates J.R., Kafatos
"Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.;
"A comprehensive survey of the Plasmodium life cycle by genomic,
                                                                                                Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Alveolata;
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EMBL/GenBank/DDBJ whole genome
preliminary data.
EMBL, AABX01000220; EAA32832.1;
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; CAAJ01010050; CAH88321.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
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1230 MW;
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1543 MW; 091807018C8D404B
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                                                                                             Euarchontoglires;
                                                                                                                              Chordata;
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Pred. No. 4.6e+02;
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RESULT 11
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01-NOV-1995
01-NOV-1995
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01-NOV-1995 (Rel. 32, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
Trypsin-modulating oostatic factor (TMOF).
Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
Bukaryota, Metazoa, Arthropoda, Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
Sarcophagidae; Sarcophaga; Neobellieria.
                                                                                                                                                                                                                                                                                                                                                              (Sarcophaga) bullata.";
Regul. Pept. 50:61-72(1994)
-!- FUNCTION: Has an oostat
 10-MAY-2005 (TrEMBLrel. 30,
                                                                                                                                                                                       Direct protein sequencing; SEQUENCE 6 AA; 695 MW;
                                                                                                                                                                                                                                   This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                     Bylemans D.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROTEIN SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=7385;
                                                                                                                                                                                                                                                                                                                                                                                               "Sequencing and characterization of trypsin modulating oos
                                                                                                                                                                                                                                                                                                                                                                                                                          Loof A.;
                                                                                                                                                                                                                                                                                                                                   FUNCTION: Has an oostatic activity. Inhibits trypsin biosynthesis in the midgut which indirectly reduces the vitellogenin concentration in the hemolymph resulting in inhibition of oocyte
                                                                                                                                                                                                                                                                                                  epithelium after a blood meal.
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                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                   1930; PubMed=8159807; DOI=10.1016/0167-0115(94)90192-9; Borovsky D., Hunt D.F., Shabanowitz J., Grauwels L.,
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41.7%;
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Berriman M., Florens L., Janssen C.S., Pain A., Christophides G.K.
James K., Rutherford K., Harris B., Harris D., Churcher C.,
Quail M.A., Ormond D., Doggett J., Trueman H.E., Mendoza J.,
Bidwell S.L., Rajandream M.A., Carucci D.J, Yates J.R., Kafatos F.
"Janse C.J., Barrell B., Turner C.M.R., Waters A.P., Sinden R.S.;
"A comprehensive survey of the Plasmodium life cycle by genomic,
transcriptomic, and proteomic analyses.";
Science 307:82-86(2005).
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Eukaryota; Alveolata;
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Q4YCP3;
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Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; aster.
lamiids; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
                                                                                                                      Hypothetical protein NON_TER 1
                                                                                                                                                                                                                                                                                                                            NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=5821;
                                                                                                                                                                                                                                                                                                                                                                                              Hypothetical protein (Fragment).
ORFNames=PB100163.00.0;
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13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
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Plant Cell 17:430-443(2005).
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Harrison J., Moller M., Langdale J., Cronk Q
"The Role of KNOX Genes in the Evolution of
                                                                                                         SEQUENCE
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PubMed=15659624; DOI=10.1105/tpc.104.028936;
Harrison J., Moller M., Langdale J., Cronk Q
Harrison F KNOX Genes in the Evolution of
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QSEX77;
10-MAY-2005 (TremBLrel.
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Plant Cell 17:430-443(2005).
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; aster
lamiids; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
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Plant Cell 17:430-443(2005).
EMBL; AY662127; AAW33745.1;
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Epermatophyta; Magnollophyta; eudicotyledons; core eudicots; aster lamiids; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE.
PubMed=15659624; DOI=10.1105/tpc.104.028936;
Harrison J., Moller M., Langdale J., Cronk O.,
"The Role of KMOX Genes in the Evolution of Mo
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Q5EX78;
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NCBI_TaxID=167270;
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NCBI_TaxID=167308;
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rphological Novelty in
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RESULT 15
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RN NUCLEOTIDE SEQUENCE.
RN NUCLEOTIDE SEQUENCE.
RN Harrison J., Moller M., Lang
RT "The Role of KNOX Genes in in Streptocarpus.";
RL Plant Cell 17:430-443(2005)
DR EMBL; AV662116; AAW33770.1;
DR EMBL; AV662116; AAW33770.1;
DR EMBL; AV662116; AAW33770.1;
DR EMBL; AV662116; AAW33770.1;
DR INCATER 19
SQ SEQUENCE 19 AA; 2034 MW;
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Plant Cell 17:430-443(2005).
EMBL; AY662116; AAW33770.1; -;
InterPro; IPR001356; Homeobox.
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Plant Cell 17:430-443(2005).
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"The Role of KNOX Genes
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Spermatophyta; Magnoliophyta;
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Q5EX90;
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Harrison J., Moller M., Langdale J., Cronk Q., Hudson A.;
"The Role of KNOX Genes in the Evolution of Morphological Novelty
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Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; aster
lamiids; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
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idicotyledons; core eudicots; asterids;
Cyrtandroideae; Didymocarpeae;
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ProDom; PD000010; Homeobox;
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EMBL; AY662112; AAW33766.1; -;
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Plant Cell 17:4
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PubMed=15659624; DOI=10.1105/tpc.104.028936;
Harrison J., Woller M., Langdale J., Cronk Q
"The Role of KNOX Genes in the Evolution of I
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids; Spermatophyta; Magnoliophyta; eudicotyledons; Cidymocarpeae; lamiids; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
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EMBL; AY662113; AAW33767.1; -;
InterPro; IPR001356; Homeobox.
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Morphological Novelty
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PubMed=15659624; DOI=10.1105/tpc.104.028936;
Harrison J., Moller M., Langdale J., Cronk Q
"The Role of KNOX Genes in the Evolution of I
Streptocarpus.";
Plant Cell 17:430-443 (2005).
                                                                                                                                                                                                                                                                                      EMBL;
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Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; aster
lamiids; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
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Q5EX94;
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Harrison J., Moller M., Langdale J., Cronk Q., Hudson A.;
"The Role of KNOX Genes in the Evolution of Morphological Novelty in
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Plant Cell 17:430-443(2005).
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                                                                   Streptocarpus.";
Plant Cell 17:430-443(2005).
EMBL; AY662107; AAW33761.1; -;
InterPro; IPR001356; Homeobox.
                                                                                                                                     PubMed=15659624; DOI=10.1105/tpc.104.028936;
Harrison J., Moller M., Langdale J., Cronk Q., Hudson A.;
"The Role of KNOX Genes in the Evolution of Morphological
                                                                                                                                                                                                                                                                                                                               10-MAY-2005 (TrEMBLrel. 30,
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STM2 protein (Fragment).
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STM2 protein (STM1 protein) (Fragment).
Streptocarpus burundianus.
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; eudicotyledons; core eudicots; aster:
lamidds; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
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NCBI_TaxID=167311;
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Eukaryota; Viridiplantae; Streptop
Spermatophyta; Magnollophyta; eudi
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QSEX97;
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Harrison J., Moller M., Langdale J., Cronk Q., Hudson A.;
"The Role of KNOX Genes in the Evolution of Morphological Novelty in
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Plant Cell 17:430-443(2005).
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NCBI_TaxID=167253;
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Pro; IPR001356; Homeobox.
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PubMed=15659624; DOI=10.1105/tpc.104.028936;
Parrison J., Moller M., Langdale J., Cronk Q., Hudson A.;
Harrison J., Moller M., Langdale J., Cronk O., Hudson Novelty
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                                                                                                                  PubMed=15659624; DOI=10.
Harrison J., Moller M.,
"The Role of KNOX Genes
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Eukaryota; Viridiplantae; Stre
Spermatophyta; Magnoliophyta;
lamiids; Lamiales; Gesneriace;
                                                     EMBL; AY662105; AAW33759.1; -;
InterPro; IPR001356; Homeobox.
                                                                                   Streptocarpus.";
Plant Cell 17:430-443(2005).
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NCBI_TaxID=167310;
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Plant Cell 17:430-443(2005).
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NCBI_TaxID=121488;
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Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
lamiids; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
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10-MAY-2005 (TrEMBLrel. 30, Created)
10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
STM2 protein (Fragment).
STM2 protein (Fragment).
Streptocarpus dunnii.
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
Lamiids; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
Streptocarpus.
NCBI_TaxID=121487;
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Plant Cell 17:430-443(2005).
EMBL; AY662103; AAW33757.1; -; Genomic_DNA.
InterPro; IPR001356; Homeobox.
ProDom; PD000010; Homeobox; 1.
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PubMed=15659624; DOI=10.1105/tpc.104.028936;

Harrison J., Moller M., Langdale J., Cronk Q., Hudson A.;

"The Role of KNOX Genes in the Evolution of Morphological Novelty in
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cc -map composition. The HMW-map composition was isolated from a D. farinae composition of the proteins that bound to IgE present in mite-allergic dog presence of proteins that bound to IgE present in mite-allergic dog antisera. The HMW-map composition comprises maph (a 109 kD protein) and composition comprises maph (a 109 kD protein) and maps (98 kD). Mite allergenic proteins and peptides, and nucleic acids cencoding them, may be used in therapeutic compositions to modify an canimal's hypersensitivity reaction to mite allergens. Animals that may be treated include mammals and birds, especially felines, canines, equines, them are to compositions to modify an composition of the proteins of compositions that may be treated include mammals and birds, especially felines, canines, equines, thumans, other pets, and work or domestic animals. The proteins or compositions and peptides can also be used to raise antibodies, which have a variety of potential uses. For example, they can be used as vaccines to passively immunise animals against dust mite hypersensitivity, as controls in test kits and as tools to recover desired dust mite allergens from a mixture of proteins
                                                                                               Matches
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                                                                                                                                                                                              Sequence
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13-MAY-1998;
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                            DPAKGMSPPGFIVGEEGVLS
  DPAKGMSPPGFIVGEEGVLS
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29.5
29.5
                                                                                               Conservative
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98US-0085295P.
98US-0098909P.
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                                                                                                                   100.0%;
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ADO76718
ADO76801
                                                                                            0;
                                                                                                                   Score 105; DB 3; Pred. No. 4.7e-09;
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                                                                                                 Mismatches
                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diagnosis; human; feline;
                                                                                                                                          Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; mapA; mapB;
                                                                                                 Indels
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Ado76718 Human :
Ado76801 Human :
                                                                                            ٥,
                                                                                               Gaps
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213
213
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밁 5

RESULT 3
AAU96317
ID AAU9

AAU96317 standard; peptide; 20

B

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Dermarophagoides farinae high molecular weight mite allergen protein (HWM CD protein) composition. The HMW-map composition was isolated from a D. farinae CD composition was permarophagoides farinae high molecular weight mite allergen protein (HWM CD proteins that bound to IgE present in mite-allergic dog antisera. The HMW-map composition comprises mapA (a 109 kD protein) and CD composition proteins and peptides, and mucletic acids cencoding them, may be used in therapeutic compositions to modify an CD canimal's hypersensitivity reaction to mite allergens. Animals that may be treated include mammals and birds, especially felines, canines, equines, bumans, other pets, and work or domestic animals. The proteins or CD fragments may also be used to diagnose allergies via a skin test. The proteins and peptides can also be used to raise antibodies, which have a variety of potential uses. For example, they can be used as vaccines to positive controls in test kits and as tools to recover desired dust mite allergens from a mixture of proteins
                                                            Matches
                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mite allergen protein; map; high molecular weight; HMW-map; allergy; house dust mite; IgE; immunoglobulin E; allergen; mapA; mapB; hypersensitivity reaction; therapy; treatment; diagnosis; human; feline; canine; veterinary; antibody; vaccine; immunisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY52522 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel high molecular weight Dermatophagoides nucleic acid polypeptides used to modify an animals' hypersensitivy to mite allergens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-APR-1998;
13-MAY-1998;
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                                                                                                                        Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dermatophagoides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       House dust mite allergen protein (map) A/B fragment map(12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-052700/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HESK-) HESKA
                                                                           Local
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                                                            20;
                           1 DPAKGMSPPGFIVGEEGVLS 20
                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 70; 154pp;
                                                                                                                         Å,
                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hunter SW,
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98US-0085295P.
98US-0098909P.
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                                                                          100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
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                                                                          Score 105; DB 3;
Pred. No. 4.7e-09;
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                                                              Mismatches
                                                                                          Length 20;
                                                              Indels
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                                                            Gaps
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AAU96317;

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RESULT 4
AAU96326
ID AAU9
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AC AAU9
XY
TO 15-J
XX
DE Der
XX
KW Der
KW Der
KW immu
XX
KW immu
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OS Derm
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                                                                                                                                                                                                                                                                                                                                                                                                                CC The invention relates to an isolated mite allergenic protein of CC Dermatophagoides, designated Der HMW-map protein, and its related nucleic CC acid. The Der HMW-map protein is useful for eliciting an immune response CC against Der HMW-map protein. The protein or a reagent comprising a non-CC proteinaceous epitope is useful for identifying an animal (e.g., dog, CC cat) susceptible to or having an allergic response to a mite. A cC therapeutic composition is useful for desensitising a host animal to an CC allergic response to a mite. The DNA and protein can be used in the CC detection of anti-Der HMW-map antibodies in animal fluids, and inhibition of fanti-Der HMW-map antibodies in animal fluids, and inhibition CC of immunoglobulin (Ig)E or Der HMW-map protein activity associated with a CC disease. Antibodies that bind to Der HMW-map are useful for inhibiting CC disease. Antibodies to IgE, to prevent immunocomplex formation, thus CC disease and proteins to IgE, to prevent immunocomplex formation, thus CC disease and the allergen hypersensitivity. Sequences ANU96314-AAU96342 represent Der HMW-map polypeptides of the invention
                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 20
                                            Der HMW-map; American house dust mite; antiallergic; mite; IgE; mite allergenic protein; immunoglobulin E; hypersensitivity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Der HMW-map; American house dust mite; antiallergic; mite; IgE; mite allergenic protein; immunoglobulin E; hypersensitivity; immunocomplex formation.
 Dermatophagoides farinae
                                immunocomplex formation.
                                                                                              Der HMW-map
                                                                                                                                15-JUL-2002
                                                                                                                                                                                               AAU96326
                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New mite allergenic protein isolated from Dermatophagoides, Der HMW-map protein, useful as a vaccine for treating mite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-351888/38
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                                                                                                                                                                                                                                                                                                  1 DPAKGMSPPGFIVGEEGVLS 20
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                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                               standard; peptide; 20
                                                                                                                                                                                                                                                                               DPAKGMSPPGFIVGEEGVLS 20
                                                                                              polypeptide #13.
                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                              (first entry)
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                                                                                                                                                                                                                                                                                                                                                            Score 105; DB 5;
Pred. No. 4.7e-09;
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                                                                                                                                                                                                                                                                                                                                               Mismatches
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RESULT 5 ADR50710

ADR50710 standard; peptide;

21

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0

proliferat:

18-NOV-2004

(first entry)

ADR50710

Mouse/

rat

sheathlin

peptide SeqID

6.

antinflammatory; osteopathic.

bone fenestration; bone cartilage transplantation;

supplementation;

Murinae

sheathlin; amelin; ameloblastin; enamel matrix protein,

proliferation promoter; differentiation promoter; periodontitis; fracture; bone defect; osteoporosis; osteoarthritis; bone grafting;

21-FEB-2003; 2003JP-00045166 21-MAY-2003; 2003JP-00142845.

20-FEB-2004; 2004WO-JP002009

02-SEP-2004

WO2004074319-A1

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                                                                                                                                  Matches
                                                                               Query Match
Best Local (
                                                                                                                                                             Dermatophagoides, designated Der HMW-map protein, and its related nucleic acid. The Der HMW-map protein is useful for eliciting an immune response against Der HMW-map protein. The protein or a reagent comprising a non-proteinaceous epitope is useful for identifying an animal (e.g., dog, cat) susceptible to or having an allergic response to a mite. A therapeutic composition is useful for desensitising a host animal to an allergic response to a mite. The DNA and protein can be used in the detection of anti-Der HMW-map antibodies in animal fluids, and inhibition of immunoglobulin (Ig)E or Der HMW-map protein activity associated with a disease. Antibodies that bind to Der HMW-map are useful for inhibiting binding of proteins to IgE, to prevent immunocomplex formation, thus represent mite allergen hypersensitivity. Sequences AAU96314-AAU96342 represent Der HMW-map polypeptides of the invention
                                                                                                                                  Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to an isolated mite allergenic protein of
                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 12; Page 71; 161pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New mite allergenic protein isolated from Dermatophagoides, designa
Der HMW-map protein, useful as a vaccine for treating mite allergy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-351888/38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (HESK-) HESKA CORP
                              1 DPAKGMSPPGFIVGEEGVLS 20
                                                                 20;
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                                                                                 Similarity
DPAKGMS PPGFIVGEEGVLS
                                                                                                                                  Å,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hunter SW,
                                                               Conservative
                                                                               100.0%; Score 105; DB 5; 100.0%; Pred. No. 4.7e-09;
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20
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                                                                 Mismatches
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                                                                 Indels
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RESULT 6
ADR67576
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention relates to novel partial peptides of the sheathlin protein (also known as amelin and ameloblastin), which is an enamel matrix protein. Specifically, it refers to physiolocially active peptides that can be employed as promoters of proliferation and differentiation in various cells including osteoblasts, chondroblasts, cementoblasts, bone marrrow-origin mesenchymal stem cells and periodontal membrane cells. The present invention describes peptides that when used as cell growth promoter sequences can be useful for the treatment of periodontitis, fracture, bone defect, osteoporosis, osteopathritis, as well as in bone grafting after surgical removal of tumour, bone fenestration, bone cartilage transplantation and bone supplementation. Accordingly, they exhibit antinflammatory and osteopathic activities. This peptide sequence is a mouse/ rat sheathlin peptide of the invention.
 The present invention relates to modified nitrilase proteins, useful for preparing carboxylic acids, preferably substituted
                                       Disclosure; Page 13; 96pp; English.
                                                                                                                                   Zelinski T,
                                                                                                                                                                                         27-FEB-2003; 2003US-0450470P
                                                                                                                                                                                                                   24-FEB-2004; 2004WO-EP001804
                                                                                                                                                                                                                                              10-SEP-2004
                                                                                                                                                                                                                                                                        WO2004076655-A1
                                                                                                                                                                                                                                                                                                   Unidentified
                                                                                                                                                                                                                                                                                                                            Nitrilase; carboxylic acid; enzyme; nitrile
                                                                                                                                                                                                                                                                                                                                                       Nitrilase
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                                                                                                                                                                                                                                                                                                                                                                                                                                    ADR67576 standard; peptide; 16 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 21 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         surgical removal of tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel partial peptide of sheathlin, useful for treating periodontitis, fracture, osteoporosis, osteoarthritis and useful in bone grafting aft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Takata T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SEGK )
                                                                                                                                                                 (BADI )
                                                                   modified nitrilase polypeptides, 
ls, preferably substituted chiral
                                                                                                           2004-653416/63
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                                                                                                                                                                                                                                                                                                                                                      peptide
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                                                                                                                                     Kesseler M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ID NO 6;
                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                                                                                                                       fragment
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kaneda
                                                                                                                                     Hauer B,
                                                                                                                                                                                                                                                                                                                                                       #165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 37; DB 8;
Pred. No. 1.8e+02
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                                                                                                                                      Friedrich
                                                                    useful for carboxylic
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                                                                   preparing acids.
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                                                                                 carboxylic
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    which chiral
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nitriles into the corresponding carboxylic acids and amonium ions. The modified nitrilases of the invention have a modification at position 296 and exhibit a modulated acceptance in comparison to wild-type nitrilase. The substitution of tyrosine at position 296 in wild-type Alcaligenes faecalis nitrilase comprising a sequence of 356 amino acids (ADR67405) was realized by site-directed mutagenesis utilizing overlap-extension ECR. The present sequence is a fragment of a nitrilase used in a sequence alignment to illustrate the invention.
                                           The invention relates to novel CASB88 polypeptides and polynucleotides. Sequences of the invention are used for the treatment of diseases e.g. Crohn's disease, Colitis ulceros, other cancer, lung cancer and preneoplasic lesions, breast, brain, uterus, muscle, eye and germ cell cancers, Wilm's tumour, retinoblastoma, rabdomyosarcoma, leimyosarcoma and synovial sarcoma. They are useful in gene therapy and as vaccines.
                                                                                                                                                                                    Novel CASB88 polypeptide and polynucleotide useful for treating cancer, Crohn's disease, colitis ulcerosa, colorectal cancer, lung cancer and reasons. Wilm's tumor, retinoblastoma and rhabdomyosarcoma.
                                                                                                                                                                                                                                                                                                                                              20-DEC-2000; 2000GB-00031095.
27-MAR-2001; 2001GB-00007632.
02-AUG-2001; 2001GB-00018926.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CASB88 protein; Crohn's disease; Colitis ulcerosa; preneoplasic l colorectal cancer; Wilm's tumour; retinoblastoma; cancer; gene th rabdomyosarcoma; leimyosarcoma; synovial sarcoma; vaccine; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                  Cassart J,
                                                                                                                                                                                                                                                                                                                                                                                                        18-SEP-2001; 2001WO-EP010980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human CASB88 antigenic epitope #19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAE28728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        carboxylic acids. Nitrilases are enzymes which catalyse the hydrolysis of
                                                                                                                                                      Claim 6; Page 77; 122pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                          27-JUN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200250103-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    epitope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-DEC-2002
                              The present sequence is human CASB88
                                                                                                                                                                                                                                                                                                                 (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS
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7; Conserv
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Pred. No. 1.9e
1; Mismatches
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                              antigenic
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1.9e+02;
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                                                                                                                                                                                                                                                                                   Vinals Y De
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                                epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cancer; gene therapy;
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Query Match Best Local S Matches 6

Similarity 6; Conserv

Conservative

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33.3%;

Score 35; Pred. No. Mismatches

DB 5; 2e+06;

0 Length

Indels

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Gaps

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Sequence 9 AA;

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RESULT 9
ADC99464
ID ADC9
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AC ADC9
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AC ADC9
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DT 01-0
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                                                                                                                                    Query Match
Best Local &
                                                                                                                                                                            The invention relates to novel CASB88 polypeptides and polynucleotides. Sequences of the invention are used for the treatment of diseases e.g. Crohn's disease, Colitis ulcerosa, colorectal cancer, lung cancer and preneoplasic lesions, breast, brain, uterus, muscle, eye and germ cell cancers, Wilm's tumour, retinoblastoma, rabdomyosarcoma, leimyosarcoma and synovial sarcoma. They are useful in gene therapy and as vaccines. The present sequence is human CASB88 antigenic epitope
                                                                                                                                                                                                                                                                Novel CASB88 polypeptide and polynucleotide useful for treating cancer, Crohn's disease, colitis ulcerosa, colorectal cancer, lung cancer and preneoplasic lesions, Wilm's tumor, retinoblastoma and rhabdomyosarcoma
Cancer-related DGI-5-binder peptide -
                 01-JAN-2004
                                                   ADC99464 standard;
                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                Claim 6; Page 81; 122pp; English.
                                                                                                                                                                                                                                                                                                    WPI; 2002-691493/74.
                                                                                                                                                                                                                                                                                                                                                      20-DEC-2000; 2000GB-00031095.
27-MAR-2001; 2001GB-00007632.
02-AUG-2001; 2001GB-00018926.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rabdomyosarcoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human CASB88
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                                                                                                                           Local Similarity
nes 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cancer; Wilm's tumous rcoma; leimyosarcoma;
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                                                                                                                             Conservative
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                (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Crohn's disease; Colitis ulcerosa; preneoplasic lesion; er; Wilm's tumour; retinoblastoma; cancer; gene therapy; leimyosarcoma; synovial sarcoma; vaccine; human;
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                                                  peptide;
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                                                                                                                                    33.3%;
                                                                                                                                                                                                                                                                                                                    Gaulis SRJ,
                                                                                                                                    Score 35; Pred. No.
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SEQ ID 302
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AAW65590
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                                                                                                                                                                                                                                Matches
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                        16-JUL-1998.
       13-JAN-1998;
                                         WO9830586-A2
                                                         Synthetic.
                                                                                                  Peptide
                                                                                                                  15-OCT-1998
                                                                                                                                    AAW65590;
                                                                                                                                                    AAW65590 standard;
                                                                                                                                                                                                                                                                 Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pillutla RC, | Prendergast J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-OCT-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2003035839-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unidentified.
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                                                                                                  #6
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        98WO-US000342
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binder pairs comprising mixing in a reaction vessel phage expressing biological targets and phage expressing target binders, each having distinguishable selection markers and selecting target and target binder pairs based on the selection markers. The molecules of the invention demonstrate cytostatic activity whilst the method may be useful for selecting target and target binder pairs for preparing a composition for treating cancer. Furthermore, the method may be utilised during gene therapy procedures. The current sequence is that of the cancer-related DGI-5-binder peptide of the invention.
Epstein-Barr virus; diagnostic test; autoimmune infection; antibody; screening; genetic marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Selecting target and target binder pairs for preparing a compos
treating cancer by mixing in a reaction vessel phage expressing
biological targets and phage expressing target binders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytostatic; cancer; gene therapy; DGI-2; DGI-5; DGI-7; DGI-9; Hras; leptin; VEGF; vascular endothelial growth factor receptor; VEGF-R1; VEGF-R2; VEGF-R3; FLT1; FMS-related tyrosine kinase 1; FLK1; KDR; kinase insert domain protein receptor; EGFR; epidermal growth factor; FGFR1; fibroblast growth factor; Tie-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to a novel method of selecting target and target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 26; SEQ ID NO 302; 172pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-OCT-2001; 2001US-0345471P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (DGIB-) DGI BIOTECHNOLOGIES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 53...
8; Conservative
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                                                                                                                                                        (first entry)
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, Goldstein N;
                                                                                                                                                                                                                                                                                 peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33.3%;
53.3%;
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Pred. No. 3.4e+02;
1; Mismatches 6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 20;
                                   disease; vaccine;
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CC Also claimed are: (1) a diagnostic test kit comprising: (a) reagents

CC which can be used to detect levels of antibodies to EBV, indicators of

CC EBV infection of cells, or levels of EBV DNA or protein in a patient; (b)

CC control samples from individuals not at risk of developing an autoimmune

CC disease; and (c) a device for determining the differences in levels of a

CC gatient and control samples to distinguish individuals at higher risk of

CC developing an autoimmune disease from those at lower risk of developing

CC an autoimmune disease; and (2) a method for screening for genetic markers

CC or risk factors for development of autoimmune disorders induced by

CC infection with EBV comprising comparing the responses of different

CC surponent to induce an autoimmune response in at least one of the strains

CC identify potential genetic markers or risk factors. The methods can be

CC used for the prevention, diagnosis, and treatment of autoimmune diseases may be e.g.

CC systemic lupus erythematosus, Sjogren's syndrome, rheumatoid arthritis,

CC present semisors is shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local (
hypoparathyroidism; primary biliary cirrhosis; ankylosing spondylitis; inflammatory bowel disease; Addison's disease; thyroiditis; filariasis; Graves' disease; ulcerative colitis; dermatconyositis; myasthenia gravis; Crohn's disease; (REST syndrome; autoimmune cystitis; glomerulonephritis; polyarteritis nodosa; hepatitis; atopic rhinitis; Goodpasture's syndrome; sarcoidosis; rheumatic fever; anti-phospholipid syndrome; farmer's lung; cushing's syndrome; bird-fanoier's lung; alveolitis; erythema nodosum; pyoderma gangrenosum; fibromyalgia; Kawasaki's disease; cardiomyopathy; Sampter's syndrome; asthma; polymyalgia rheumatica; psoriasis; arteritis; erythroblastosis foetalis; cyclitis; IgA nephropathy; Hodgkin's lymphoma;
                                                                                                                                                                                                                        polymyositis; systemic lupus erythematosus; SLE; rheumatoid arthritis; Sjogren's syndrome; diabetes mellitus; adrenalitis; multiple sclerosis; demyelinating disease; Hashimoto's thyroiditis; autoimmune infertility;
                                                                                                                                                                                                                                                                                           Vaccine; therapy; autoimmune
                                                                                                                                                                                                                                                                                                                                       Human autoantigen Sm B/B' octapeptide #3 used in the invention.
                                                                                                                                                                                                                                                                                                                                                                                     15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAE09067 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a vaccine for alleviating or preventing autoimmune disorders induced by infection with Epstein-Barr viru
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 54; 81pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       risk of developing autoimmune disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-399062/34.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         comprises EBV or a component in a carrier for administration of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of Epstein-Barr virus or component(s) - for developing product(s) the can be used for preventing, diagnosing, treating or determining
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                           disorder; Epstein-Barr virus; EBV; anaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the specification
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2e+06;
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Considered lique erythematosus (SLE), Sjogren's syndrome, juvenile onset of inflammatory lowel disease, polymyositis, dermatomyositis, multiple conditis, hashimoto's syndrome, autoimmune uveitis, Addison's conditis, adermatory bowel disease, polymyositis, dermatomyositis, Addison's conditis, hashimoto's thyroiditis, autoimmune uveitis, Addison's conditis, hashimoto's thyroiditis, autoimmune thyroid disease, conditis, autoimmune thyroid disease, conditis, autoimmune thyroid disease, conditis, primary biliary cirrhosis, Graves' disease, conditis, primary biliary cirrhosis, Graves' disease, conditis, primary biliary cirrhosis, dermatitis, demyelimating conditis, autoimmune thyroid disease, conditis, conditis, subsecute cutaneous lupus erythematosus, by permits, bullous pemphigoid, dermatitis herpetiformis, alopecia areata, conditional pemphigus, bullous pemphigoid, scleroderma, progressive systemic conditis, conditis, pemphigoid, scleroderma, progressive systemic conditis, conditis, crohn's disease, mixed connective tissue disease, sclerodetyly and telangisectasia), adult onset diabetes mellitus (Type II conditis, crohn's disease, mixed connective tissue disease, conditis, crohn's disease, mixed connective tissue disease, conditis, conditis, atopic rhinitis, Goodpasture's conditis, conditis, atopic rhinitis, Goodpasture's conditis, atopic rhinitis, Goodpasture's conditis, conditis, stopic rhinitis, Goodpasture's conditis, conditis, bird-fancier's lung, allergic concephalomyelitis, toxic necrodermal lysis, alopecia, Alport's syndrome, conditis, interstitial lung disease, conditis, interstitis, dangue, conditis, conditis, atopic rhinitis, dangue, conditis, conditis, and populatis, conditis, dangue, conditis, and populatis, conditis, dangue, conditis, nasal polyps, eosinophilia, and Behcet's conditis, hererodermal arteritis, gangue, servithomic cyclitis, benches conditis, shalman's syndrome, conditis, hence cyclitis, benches cyclitis, benches and conditis, shalman's syndrome.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              comprising EBV or its component in a carrier. The vaccine is useful for preventing or alleviating autoimmune disorders induced by EBV, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-FEB-2000; 2000US-00500904
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel vaccine for alleviating or preventing autoimmune disorders induced Epstein-Barr virus (EBV) infection e.g. systemic lupus erythematosus, juvenile onset diabetes mellitus, comprises EBV virus or its component.
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relapsing polychondritis. The present sequence is human autoantigen Sm B/B' octapeptide used in the invention
                                                                                                        non-Hodgkin's lymphoma, cardiomyopathy, Henoch-Schonlein purpura, post
vaccination syndromes, renal cell carcinoma, Eaton-Lambert syndrome or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (OKLA-) OKLAHOMA MEDICAL RES FOUND
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Query Match Best Local : Matches

Similarity 6; Conserv

Conservative

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This invention relates to a B cell clonal toxin. The toxin is made from CC two moieties, the first causes the toxin to be internalised by a B cell, CC and the second is a biologically acceptable toxin. The invention includes CC a method for inactivating/killing an antigen specific B cell. A target B CC cell is contacted with an effective amount of a B cell clonal toxin. The CC method is useful for selective immunosuppression in conditions CC characterised by the presence of an unwanted or deleterious immune CC response, e.g. in the treatment of antigen specific antibody mediated CC disease conditions. Use of the B cell clonal toxin can result in CC immunosuppressive; antiarhamatory; antialperic; virucide; antidiabetic continuous pressive; antiarhamatory; antialperic; virucide; antidiabetic continuous uppressive; antiarhamatory; antialperic; dermatological; and nephrotropic activity. The toxin is particularly useful for treating a host suffering from an antigen specific antibody conditated disease condition, where the antigen specific antibody is condition is useful for treating allergies, viral disease conditions, and autoimmune disorders. Also treated are skin diseases; autoimmune conditions and condition vascular diseases; renal diseases; neurologic and infertility disorders. The present renal diseases; pulmonary diseases; candinfertility disorders. An antibody response to this antigen is implicated in systemic lupus erythematosus, a disorder which may be
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B cell clonal toxin useful for treating autoimmune disorders such Grave's disease, myocardial infarction, Crohn's disease, multiple sclerosis, comprises a group that causes toxin to be internalized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunosuppressive; antiinflammatory; antiallergic; antidiabetic; thyronimetic; antithyroid; vasotropic; cardiant; antiulcer; neuroprotective; antirheumatic; antiarthritic; dermatcological; ophthalmological; nephrotropic; allergy; autoimmune disorder; skin disease; autoimmune endocrinopathy; vasculitic syndrome; cardiovascular disease; immunohaematologic disorder; neurologic disease; gastrointestinal disease; collagen vascular disease; renal disease; pulmonary disease; infertility disorder; UI-UG RNP; systemic lupus erythetmatosus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 33; 46pp; English
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Best Local
                                                                                                                  comprising an Epstein-Barr virus or a component in a carrier for administration to alleviate or prevent the autoimmune disorders. The methods and compositions of the present invention are useful for diagnosing, preventing, treating and/or alleviating autoimmune disorders, such as diabetes mellitus, rheumatoid arthritis, juvenile rheumatoid arthritis, osteoarthritis, psoriatic arthritis, multiple sclerosis, encephalomyelitis, myasthenia gravis, systemic lupus erythematosus, autoimmune thyroiditis, atopic dermatitis, eczematous dermatitis, psoriasis, Sjogren's Syndrome, Crohn's disease, aphthous ulcer, iritis, psoriasis, Sjogren's Syndrome, Crohn's disease, aphthous ulcer, iritis,
conjunctivitis, keratoconjunctivitis, ulcerative colitis, asthma, allergic asthma, cutaneous lupus erythematosus, scleroderma, vaginitis, proctitis, drug eruptions, leprosy reversal reactions, erythema nodosumleprosum, autoimmune uveitis, allergic encephalomyelitis, acute necrotising haemorrhagic encephalopathy, idiopathic bilateral progressive sensorineural hearing loss, aplastic anaemia, pure red cell anaemia, idiopathic thrombocytopenia, polychondritis, Wegener's granulomatosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-NOV-1993;
16-MAY-1996;
13-JAN-1997;
                                                                                                                                                                                                                                                                          The invention relates to a vaccine for alleviating or preventing autoimmune disorders induced by infection with Epstein-Barr virus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              вву; viral; вряселн-Barr virus nuclear antigen; vaccine; autoimmune disorder; Epstein-Barr virus infection; diabetes mellitus; arthritis; multiple sclerosis; dermatitis; psoriasis; asthma; anaemia
                                                                                                                                                                                                                                                                                                                                Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                  New vaccine preventing or alleviating autoimmune disorders induced by the 
Epstein-Barr virus, such as diabetes mellitus, rheumatoid arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Harley JB,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human herpesvirus
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10-MAY-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HARL/) HARLEY J B. (JAME/) JAMES J A.
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                                                                                                                                                                                                                                                                                                                                                                                sclerosis, systemic lupus erythematosus, atopic dermatitis
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96US-0019053P.
97US-00781296.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to a bradykinin agonist, useful in the selective stimulation of arterial smooth muscle bradykinin receptors or treatment of cardiovascular disease comprises maximakinin, its analogue or fragment or their encoding nucleic acids. Maximakinin derivatives are used in the preparation of a medicament for selectively stimulating
                                                                                                                                                                                             organs or organ systems, vascular stenosis, occlusion to peripheral vessels (such as limb), hypertension; and on the treatment of a condition of disorder that can be ameliorated with the selective bradykinin receptor agonist. Also useful for treatment of a condition for which dilation of vessels is required e.g. treatment of tumours and cancers, and for gene therapy. Maximakinin is a selective bradykinin receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bradykinin agonists comprising maximakinin and its fragments, useful selectively stimulating arterial smooth muscle bradykinin receptors (for treating cardiovascular disease e.g. ischemic heart disease.
                                       represents a maximakinin
                                                               and for gene therapy. Maximakinin is a selective bradykinin receptor agonist and exhibits both tissue selector specific targeting. This rissue selectivity enables the use of the peptides in the treatment of diseases of the cardiovascular system while minimizing the side effects associated with the use of less selective agents. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                     arterial smooth muscle bradykinin receptors; for treating cardiovascular disease (claimed) e.g. ischemic heart disease, ischemic disease of other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 7;
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06-JUN-2003;
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2003GB-00012992
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Pred. No. 2e+C
O; Mismatches
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2e+06;
                                    bradykinin agonist
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4 KGMSPPGF 11

Matches Best Local Query Match

6. Similarity

Conservative

32.4%;

Score 34; DB 8; Le Pred. No. 2.8e+02;

Length 12;

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RESULT 15
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                          organs or organ systems, vascular stenosis, occlusion to peripheral vessels (such as limb), hypertension; and on the treatment of a condition or disorder that can be ameliorated with the selective bradykinin receptor agonist. Also useful for treatment of a condition of vessels is required e.g. treatment of a condition for which dilation of vessels is required e.g. treatment of tumours and cancers, and for gene therapy. Maximakinin is a selective bradykinin receptor agonist and exhibits both tissue and receptor specific targeting. This tissue selectivity enables the use of the peptides in the treatment of diseases of the cardiovascular system while minimizing the side effects associated with the use of less selective agents. The present sequence represents a maximakinin derivative as a bradykinin agonist
                                                                                                                                                                                                              The present invention relates to a bradykinin agonist, useful in the selective stimulation of arterial smooth muscle bradykinin receptors or treatment of cardiovascular disease comprises maximakinin, its analogue or fragment or their encoding nucleic acids. Maximakinin derivatives are used in the preparation of a medicament for selectively stimulating arterial smooth muscle bradykinin receptors; for treating cardiovascular disease (claimed) e.g. ischemic heart disease, ischemic disease of other
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Sequence 12
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06-JUN-2003; 2003GB-00012992.
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vascular stenosis; hypertension; tumour; cancer; Maximakinin.
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RESULT 17
ABP48137
ID ABP48
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Best Local Similarity
Matches 6; Conser
                                                                                                                                                                                                                                                                   organs or organ systems, vascular stenosis, occlusion to peripheral vessels (such as limb), hypertension; and on the treatment of a condition or disorder that can be ameliorated with the selective bradykinin receptor agonist. Also useful for treatment of a condition for which dilation of vessels is required e.g. treatment of tumours and cancers, and for gene therapy. Maximakinin is a selective bradykinin receptor agonist and exhibits both tissue and receptor specific targeting. This tissue selectivity enables the use of the peptides in the treatment of diseases of the cardiovascular system while minimizing the side effects associated with the use of less selective agents. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to a bradykinin agonist, useful in the selective stimulation of arterial smooth muscle bradykinin receptors or treatment of cardiovascular disease comprises maximakinin, its analogue or fragment or their encoding nucleic acids. Maximakinin derivatives are used in the preparation of a medicament for selectively stimulating arterial smooth muscle bradykinin receptors; for treating cardiovascular disease (claimed) e.g. ischemic heart disease, ischemic disease of other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bradykinin agonists comprising maximakinin and its fragments, useful for selectively stimulating arterial smooth muscle bradykinin receptors and
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06-JUN-2003; 2003GB-00012992
ABP48137 standard; peptide; 18
                                                                                                                                                                                                                      Sequence 13
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                                                                                                                                                                                                                                                         represents a maximakinin derivative as a bradykinin agonist
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                                                                                                                                                                    32.4%;
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                                                                                                                                                     Score 34; DB 8; Le
Pred. No. 3.1e+02;
0; Mismatches 2;
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RESULT 18
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to novel amino acid sequences which bind specifically to growth hormone receptor (GHR). The peptides of the invention have osteopathic, endocrine; and hormonal activity. The amino acid sequences are useful to treat dwarfism and acromegaly, and in animal husbandry to promote growth and milk production in cows. The sequence represents a growth hormone receptor binding peptide of the invention
06-FEB-2003; 2003GB-00002623
06-JUN-2003; 2003GB-00012992
                                      06-FEB-2004; 2004WO-GB000470
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                                                                                                                                                                                                     04-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 18 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Growth hormone; receptor; osteopathic; endocrine; hormonal; dwarfism; acromegaly; animal husbandry; milk production; GHR.
                                                              19-AUG-2004.
                                                                                                               Unidentified
                                                                                                                                     vascular stenosis; hypertension; tumour; cancer; Maximakinin.
                                                                                                                                                  bradykinin; Cardiovascular; Vasotropic; Hypotensive; Cytostatic;
                                                                                                                                                                           Maximakinin 1-18 as a bradykinin agonist.
                                                                                                                                                                                                                                                      ADR43748 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Fig 15A; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hormones and are useful to treat conditions such as dwarfism a acromegaly, and to promote growth and milk production in cows.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New amino acid sequences fully defined in the specification mimic growth hormones and are useful to treat conditions such as dwarfism and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-478462/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Blume AJ, Brissette R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-DEC-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (DGIB-) DGI BIOTECHNOLOGIES INC.
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                                                                                                                                                                                                                                                                                                                                           5 GMSPPGFIVG 14
                                                                                                                                                                                                                                                                                                                                                                32.4%;
Similarity 60.0%;
6; Conservation
                                                                                                                                                                                                                                                                                                                    GVSYPGWLVG 15
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                                                                                                                                                                                                   (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97US-00990888.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-00990888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide secondary library sequence #13
                                                                                                                                                                                                                                                     peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Carcamo J,
                                                                                                                                                                                                                                                                                                                                                                               Score 34; DB 5;
Pred. No. 4.4e+02;
                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mandecki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ,SM
                                                                                                                                                                                                                                                                                                                                                                                            Length 18;
                                                                                                                                                                                                                                                                                                                                                                    Indels
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RESULT 19
ADN17072
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to a bradykinin agonist, useful in the selective stimulation of arterial smooth muscle bradykinin receptors or treatment of cardiovascular disease comprises maximakinin, its analogue or fragment or their encoding nucleic acids. Maximakinin derivatives are used in the preparation of a medicament for selectively stimulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bradykinin agonists comprising maximakinin and its fragments, useful selectively stimulating arterial smooth muscle bradykinin receptors a for treating cardiovascular disease e.g. ischemic heart disease.
             WPI; 2004-365151/34
                                                                                                                                                                                                 WO2004035614-A1
                                                                                                                                                                                                                             Unidentified
                                                                                                                                                                                                                                                        allosteric modulator; g-alpha
                                                                                                                                                                                                                                                                       G alpha subunit; G
                                                                                                                                                                                                                                                                                                 Second generation G protein library g-alpha peptide,
                                                                                                                                                                                                                                                                                                                               15-JUL-2004
                                                                                                                                                                                                                                                                                                                                                           ADN17072;
                                                                                                                                                                                                                                                                                                                                                                                    ADN17072 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        arterial smooth muscle bradykinin receptors; for treating cardiovascular disease (claimed) e.g. ischemic heart disease, ischemic disease of other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-604409/58
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                                                                                                             18-OCT-2002; 2002US-0419143P
                                                                                                                                         15-JAN-2003; 2003WO-EP000352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   represents a maximakinin derivative as a bradykinin agonist
                                         Hyde-Deruyscher R,
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                                                                                    KARO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           KGPRPPGF 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KGMSPPGF 11
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                                                     Christensen DJ,
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                                                                                                                                                                                                                                                                     protein; G protein
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                                          Duffin
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 34; DB 8;
Pred. No. 4.4e+02;
                                         Hamilton PT, Fredericks
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                       coupled receptor; GPCR;
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                                                        Blaesius
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                              the identification of the activation state of a G protein coupled receptor (GPCR), the kit comprising a first peptide cited above labeled with a first label; methods of identifying the activation state of a GPCR with a first label; methods of identifying the activation state of a GPCR is a method of identifying a modulator of a GPCR; a method of determining the presence or amount of a modulator of a GPCR in a sample; methods of identifying a substance as an agonist or antagonist of GPCR; and a method of identifying a G-alpha subunit which interacts with a GPCR. The composition and methods are useful in detecting the activation or deactivation of a G protein-coupled receptor or in monitoring the activation state of a GPCR within a cell. These may also be used for identifying allosteric modulators of GPCRs. This sequence represents a G protein library g-alpha peptide oligo of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New synthetic or partially purified peptides that can bind to specific subunits of G proteins, useful for detecting the activation or deactivation of a G protein-coupled receptor (GPCR) or for identifying allosteric modulators of GPCR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a novel non-naturally occurring and/or at least partially purified peptide, which does not comprise a V-H or V-L homology unit of an antibody and specifically binds to an activated G alpha subunit of a G protein. The invention further comprises; an assay kit for
Maximakinin 1-19 as a bradykinin agonist.
                                            04-NOV-2004
                                                                                       ADR43747;
                                                                                                                                  ADR43747 standard;
                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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8; Conserv
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A
                                                                                                                                                                                                                                                                                                                            Conservative
                                            (first entry)
                                                                                                                               peptide; 19
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                                                                                                                                                                                                                                                                                                                                                32.4%;
                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                DB 8;
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state of a GPCR
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RESULT 20
ADR43747
ID ADR43
XX ADR43
XX DT 04-N(
DE Maxin
XX brad
KW vasc
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XX U
                                                                                                                                                                                             Bradykinin agonists comprising maximakinin and its fragments, useful selectively stimulating arterial smooth muscle bradykinin receptors after treating cardiovascular disease e.g. ischemic heart disease.
    The present invention selective stimulation
                                                                                                                       Disclosure;
                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-604409/58
                                                                                                                                                                                                                                                                                                                                                                                                                                        Shaw C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-FEB-2003; 2003GB-00002623
06-JUN-2003; 2003GB-00012992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vascular stenosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          UUTECH LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                        Hirst D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cardiovascular; Vasotropic; Hypotensive; Cytostatic; enosis; hypertension; tumour; cancer; Maximakinin.
                                                                                                                           SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003GB-00002623
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                                                                                                                                                                                                                                                                                                                                                                                                                                            Chen
relates to a bradykinin agonist, useful in the of arterial smooth muscle bradykinin receptors
                                                                                                                   1; 67pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                            O'rourke
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RESULT 21
AAW18175
ID AAW18
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-MAY-1995;
20-OCT-1995;
31-OCT-1995;
06-DEC-1995;
A vaccinating agent for promoting an immune response in a mammal against Mycobacterium pathogens comprises at least one immunodominant epitope of at least one majorly abundant extracellular protein, i.e. the M.tuberculosis 110, 80, 71, 58, 45, 32A, 32B, 30, 24, 23.5, 23, 16, 14 or 12 kD proteins, or their analogues, homologues and subunits. The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      arterial smooth muscle bradykinin receptors; for treating cardiovascular disease (claimed) e.g. ischemic heart disease, ischemic disease of other organs or organ systems, vascular stenosis, occlusion to peripheral vessels (such as limb), hypertension; and on the treatment of a condition or disorder that can be ameliorated with the selective bradykinin receptor agonist. Also useful for treatment of a condition for which dilation of vessels is required e.g. treatment of tumours and cancers, and for gene therapy. Maximakinin is a selective bradykinin receptor agonist and exhibits both tissue and receptor specific targeting. This tissue selectivity enables the use of the populdes in the treatment of diseases of the cardiovascular system while minimizing the side effects associated with the use of less selective agents. The present sequence represents maximakinin 1-19 as a bradykinin agonist
                                                                                                                                                                                                                             Vaccines derived from M.tuberculosis major abundant extracellular proteins - are easy to prepare and less toxic than conventional killed attenuated vaccines, useful for protecting against or treating
                                                                                                                                                          Claim 49; Page 162; 193pp;
                                                                                                                                                                                                                Mycobacterial infections.
                                                                                                                                                                                                                                                                                                                                            WPI; 1997-020936/02.
                                                                                                                                                                                                                                                                                                                                                                                             Horwitz MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-MAY-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vaccine; vaccinating agent; M.tuberculosis; pathogen; bacteria; virus fungus; protozoan; HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Immunodominant epitope from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-AUG-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or fragment or their encoding nucleic acids. Maximakinin derivatives are used in the preparation of a medicament for selectively stimulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fungus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   treatment of cardiovascular disease comprises maximakinin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                VIND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protozoan;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   CALIFORNIA.
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95US-00545926.
95US-00551149.
95US-00568357.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tuberculosis
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75.0%;
                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacterium tuberculosis 30KD protein.
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . 4.6e+02;
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  23.5, 23, 16, 14 or bunits. The present
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Best Local
         Sequences shown in AAW75587 to AAW75641 represent synthetic peptides derived from the native 30kD major secretory protein of M. tuberculosis. These peptides are used for splenic lymphocyte profileration assays to identify the immunodominant T-cell epitope of the 30kD protein. The invention provides an agent for vaccinating mammals against Mycobacterium. The agent comprises at least one of the major abundant Mycobacterium. The agent comprises at least one of the major abundant extracellular 110, 80, 71, 58, 45, 32A, 32B, 30, 24, 23.5, 23, 16, 14 or 12 kD proteins of M. tuberculosis, or at least 1 of their immunodominant epitopes and interleukin-12 (IL-12) or MF59 as adjuvants. The agent
                                                                                                                                                                                                                         Vaccines against Mycobacterium containing major extracellular proteins used to, e.g. induce protective and therapeutic immune responses, and f detecting an immune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protect against (or to treat existing) infections by Mycobacterium (especially M. tuberculosis) while the epitopes can also be used to detect presence of an immune response to a Mycobacterium pathogen. The vectors, containing the DNA for the extracellular proteins, are used to transform cells for production of recombinant DNA molecules. More generally the DNA from other pathogens can be used in vaccines, e.g. against other bacteria, viruses, fungi and protozoa. Since different combinations of DNA can be used, a wide range of effective compositions can be produced. They generate a response against the antigens most often found on infected cells during the infection, regardless of the strength or specificity of the immune response. The vaccines are easy to produce and less toxic than known killed or attenuated vaccines, so can be given to immunocompromised subjects, e.g. those with HIV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycobacterium tuberculosis; vaccination; extracellular product; immunodominant epitope; interleukin-12; MF59; immune response; opsonising humoral response; intracellular pathogen.
                                                                                                                                                                                           Example 28;
                                                                                                                                                                                                                                                                                                    WPI; 1998-413815/35
                                                                                                                                                                                                                                                                                                                                     Horwitz MA,
                                                                                                                                                                                                                                                                                                                                                                                                            21-JAN-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 M. tuberculosis 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW75617;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycobacterium
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity 5; Conserved
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                                                                                                                                                                                        Page
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                                                                                                                                                                                                                                                                                                                                     Harth G,
                                                                                                                                                                                                                                                                                                                                                                          CALIFORNIA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tuberculosis.
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                                                                                                                                                                                        96; 236pp; English.
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Pred. No. 5.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 peptide
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RESULT 23
ABU56381
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Best Local
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                                          The invention describes a vaccine for promoting an immune response, in a mammalian host, against infectious pathogens of the genus Mycobacterium, comprising at least 1 immunodominant epitope of at least one majority abundant extracellular product comprising Mycobacterium tuberculosis 110, 80, 71, 58, 45, 32A, 32B, 30, 24, 23.5, 23, 16, 14, 12 KD protein or their analogues, homologues or subunits. The proteins and polypeptides of the invention are useful in gene therapy and treatment of diseases caused by Mycobacterium such as tuberculosis. This sequence represents a
                                                                                                                                                                                                                                                                                                                                                06-DEC-1995;
23-MAY-1996;
21-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                          23-NOV-1993;
12-AUG-1994;
23-MAY-1995;
31-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacterium, specifically M. tuberculosis. The immunodominant epitopes can also be used (typically in a cutaneous hypersensitivity test) to detect an immune response to vaccination. Preparation of the agent does not require selection of the most immunogenic products, so large scale production and purification are easy, resulting in a consistent, standardised formulation, having lower toxicity than killed or attenuated vaccines. The agents provide a rapid and effective response (including a strong cell-mediated component) and are safe even in immunocompromised subjects. They prevent development of an opsonising humoral response that might spread intracellular pathogens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
Sequence 15
                                                                                                                                                                                                             pathogens
                                                                                                                                                                                                                             New vaccine,
                                                                                                                                                                                                                                                                                        Horwitz
                                                                                                                                                                                                                                                                                                                    (REGC )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-SEP-2001; 2001US-00953510.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2002131975-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antibacterial; tuberculosis; vaccine; gene therapy; 30kDa protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium tuberculosis 30kDa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABU56381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABU56381 standard; peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 15 AA;
                             fragment of the Mycobacterium tuberculosis 30kDa protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           raise a protective
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                                                                                                                                                                                                                                                                                                                     VIND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DPAKGMSP 8
                                                                                                                                                                                 Page 66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DPSQGMGP 11
                                                                                                                                                                                                               of.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                           useful for promoting an immune response againthe genus Mycobacterium in a mammalian host.
                                                                                                                                                                                                                                                                                                                    CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                      Harth G;
                                                                                                                                                                                                                                                                                                                                              95US-00447398.
95US-00551149.
95US-00568357.
96US-00652842.
98US-00157689.
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                                                                                                                                                                                                                                                                                                                                                                                                                                       93US-00156358
                                                                                                                                                                               82pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or therapeutic immune response against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 33; DB 2;
Pred. No. 5.1e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein fragment
                                                                                                                                                                                                                           immune response against infectious
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RESULT 24
AAE39326
ID AAE3
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XX AAE3
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XX API
DR 131-1
PR 23-1
PR 
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Best Local S
Matches 5
                                                                                            Matches
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Best Local
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23-MAY-1995;
31-OCT-1995;
06-DEC-1995;
23-MAY-1996;
                                                                                                                                                                                                                                                      The invention relates to a novel nucleic acid encoding an abundant extracellular protein of Mycobacterium tuberculosis useful as vaccines for generating protective or therapeutic immune response against viral, bacterial, fungal and protozoal infections. They are also used as immunotherapeutic agents. The present sequence is M. tuberculosis strain Erdman 30 KD major secretory protein immunodominant T-cell epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A nucleic acid encoding an abundant extracellular protein of Mycobacterium tuberculosis useful as vaccines for generating or therapeutic immune response against viral, bacterial, fund
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vaccine; a virucide;
                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Horwitz MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-NOV-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAE39326 standard; peptide; 15
                                                                                                                                                                                                                                     peptide
                                                                                                                                                                                                                                                                                                                                                                                                                            Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protozoal infections.
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                                                                                       . Similarity
5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                               25;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antibacterial; fungicide;
; therapy.
                                              DPAKGMSP 8
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DPSQGMGP 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DPSOGMGP 11
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                                                                                            Conservative
                                                                                                                                                                                       ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Harth G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CALIFORNIA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96US-00652842
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95US-00568357
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95US-00447398
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                                                                                                                                                                                                                                                                                                                                                                                                                          64; 82pp;
                                                                                                                  31.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KD protein immunodominant T-cell epitope peptide #31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                            English.
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Pred. No. 5.1e
2; Mismatches
                                                                                            2
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                                                                                            Score 33; DB 7; 1
Pred. No. 5.1e+02;
2; Mismatches 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protozoacide; immunostimulant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 6;
5.1e+02;
1;
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                                                                                                                                        Length 15;
                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     aring protective fungal or
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                                                                                            Gaps
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RESULT 25 ADF45168 ID ADF45

ADF45168 standard; peptide; 15

ADF45168;

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Search completed: January 26, 2006, 07:58:12
Job time : 70.931 secs
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                                                                                                                              Query Match
Best Local
                                                                                                                  Matches
                                                                                                                                                                                                            The invention describes a new vaccinating agent for promoting an immune response in a mammalian host against Mycobacterium comprising at least one immunodominant epitope of at least one majorly abundant extracellular product comprising M. tuberculosis 110, 80, 71, 58, 45, 32A, 32B, 30, 24, 23.5, 23, 16, 14 or 12 KD protein, or its analogue, homologue or subunit. The bacterium is M. tuberculosis. The vaccinating agent is useful for promoting an immune response in a mammalian host against Mycobacterium. This is the amino acid sequence of a Mycobacterium tuberculosis 30kD extracellular protein fragment that can be used to illicit and immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-AUG-1994
23-MAY-1995
31-OCT-1995
23-MAY-1996
06-DEC-1996
06-DEC-1996
21-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                               Vaccinating agent useful for promoting an immune response in a mammalian host against Mycobacterium, comprises an immunodominant epitope of a majorly abundant extracellular product comprising an M. tuberculosis 30 KD protein.
                                                                                                                                                                         Sequence 15 AA;
                                                                                                                                                                                                                                                                                                                                                               Claim 3; SEQ ID NO 67; 83pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-897688/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Horwitz MA;
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Mycobacterium; 30kD; extracellular protein.
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Local Similarity 62.5%;
hes 5; Conservative
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4 DPSQGMGP 11
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94US-00289667.
95US-00447398.
95US-00551149.
96US-00652842.
96US-00568357.
98US-00157689.
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                                                                                                    Score 33; DB 7; Lengtn 10,
Pred. No. 5.1e+02;
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1: /cgn2_6/ptodata/1/iaa/5_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/H_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
     January 26, 2006, 07:50:06 ; Search time 18.7931 Seconds (without alignments) 87.985 Million cell updates/sec
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        GenCore version 5.1.6 (c) 1993 - 2006 Compugen Ltd
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                                                                                                                      SEQ ID NO 13
LENGTH: 20
TYPE: PRT
ORGANISM: Dermatophagoides farinae
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LENGTH: 20
TYPE: PRT
ORGANISM: Dermatophagoides farinae
S-09-292-225-4
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    Query Match
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EARLIER FILING DATE: 1998-05-13
EARLIER PPLICATION NUMBER: 60/08,565
EARLIER FILING DATE: 1998-04-17
EARLIER APPLICATION NUMBER: 09/062,013
EARLIER FILING DATE: 1998-04-17
NUMBER OF SEQ ID NOS: 49
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EARLIER FILING DATE: 198-04-17
NUMBER OF SEQ ID NOS: 49
SOFTWARE: Patentin Ver. 2.0
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    100.0%; Score 105;
DB 2;
Length 20;
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LENGTH: 21
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GENERAL INFORMATION:
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Matches 6; Conservative
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                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 30309-3450
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, VG
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                        APPLICATION NUMBER: US/08/475
FILING DATE: June 7, 1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/867,81
FILING DATE: April 13, 1992
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                        FILING DATE: January 31, 1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/472,94
FILING DATE: January 31, 1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Harley, TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                          CLASSIFICATION: 424
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Atlanta
STATE: GA
                                                                                                                       APPLICATION NUMBER: 07/648,205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Patrea L. Pabst
STREET: 2800 One Atlantic
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                                                                   07/472,947
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Pred. No.
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Mismatches 0;
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; ORGANISM: homo sapien
US-07-867-819D-116
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                                                                                                                                                                                                                                                  Sequence 100, Application US/08475955 Patent No. 6641813 GENERAL INFORMATION:
APPLICANT: Harley, John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matches 6; Conserv
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GENERAL INFORMATION:
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Best Local Similarity 75.0%;
Matches 6; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Harley, John
TITLE OF INVENTION: Methods and Reagents for Diagnosis of Autoantibodies
FILE REFERENCE: OMRF 114 CIP (2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 1991-01-31
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                               ZIP: 30309-3450
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                         TITLE OF INVENTION: METHODS TITLE OF INVENTION: AUTOANTI NUMBER OF SEQUENCES: 218
CORRESPONDENCE ADDRESS:
ADDRESSEE: Patrea L. Pabet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                      STREET: 2800 C
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                                                                                        COUNTRY:
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                                                                                        USA
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                                                                                                                                                                                                               METHODS AND REAGENTS FOR DIAGNOSIS OF AUTOANTIBODIES
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Pred. No. 4.6e+05;
0; Mismatches 2
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Pred. No. 4.6e+05;
0; Mismatches 2;
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; NAME/KEY: MISC_FEATURE
; LOCATION: (1)...(8)
; OTHER INFORMATION: Binding site
US-07-867-819D-100
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                                                                                                                                                                                                                                       APPLICATION: Matthey, John
TITLE OF INVENTION: Methods and Reagents for Diagnosis of Autoantibodies
FILE REFERENCE: OMRT 114 CIP (2)
CURRENT APPLICATION NUMBER: US/07/867,819D
CURRENT FILING DATE: 1992-04-13
PRIOR APPLICATION NUMBER: 07/472,947
PRIOR APPLICATION NUMBER: 07/472,947
PRIOR APPLICATION NUMBER: 07/648,205
PRIOR FILING DATE: 1990-01-31
PRIOR FILING DATE: 1991-01-31
NUMBER: 07/648,205
PRIOR FILING DATE: 1991-01-31
NUMBER: 07/648,205
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NUMBER: 07/648,205
PRIOR FILING DATE: 1991-01-31
NUMBER: 07/648,205
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  Matches
                                              Query Match
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Best Local Similarity 75.0%;
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Best Local Similarity 75.
Matches 6; Conservative
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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FILING DATE: January 31, 1990
ATTORNEY/AGENT INFORMATION:
NAME: Pabst, Patrea L.
REGISTRATION NUMBER: 31,284
REFERENCE/DOCKET NUMBER: OMRE11
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                               TYPE: PRT ORGANISM: homo sapien FEATURE:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/648,205
FILING DATE: January 31, 1991
PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
. APPLICATION UMBER: US/08/475,955
FILING DATE: June 7, 1995
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PRIOR APPLICATION DATA:
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TOPOLOGY: lir
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April 13, 1992
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32.4%; Score 34; DB 2;
75.0%; Pred. No. 4.6e+05;
ative 0; Mismatches 2
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Pred. No. 4.6e+05
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  Gaps
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FILE REFERENCE: 2598-4002
CURRENT APPLICATION NUMBER: US/08/990,888B
CURRENT FILING DATE: 1997-12-15
NUMBER OF SEQ ID NOS: 81
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 28
SEQ ID NO 28
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 9
US-09-157-689-67
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US-08-990-888-28
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Best Local Similarity
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APPLICANT: Brissette, Renee
APPLICANT: Carcamo, Juan
APPLICANT: Mandecki, Wlodeck S.
APPLICANT: Tang, Pauline M.
TITLE OF INVENTION: Assays For Compounds Which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
           APPLICATION NUMBER: US 08/
FILING DATE: 06-DEC-1995
PRIOR APPLICATION DATE: US 08/
APPLICATION NUMBER: US 08/
FILING DATE: 31-OCT-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
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                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                     CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Abundant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Horwitz, Marc
                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Kurt A.
STREET: 2029 Centur
CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28, Application US/08990888B
). 6387879
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                                                                                                                                                                                                                                                                                                                       90067
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/09157689
                                                                                                                                                                                                                                                                                                                                                                                      3: Kurt A. MacLean
2029 Century Park East, Suite 3800
                                                                                                                                                                                                                                                                                                                                    U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Horwitz, Marcus A.
23-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Abundant Extracellular Products and Methods for Their Production and Us
                                                                                                                      US 08/568,357
            US 08/447,398
                                                                US 08/551,149
                                                                                                                                                                                             US/09/157,689
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Pred. No. 60;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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; ORGANISM: Mycol; STRAIN: Erdman US-09-157-689-67
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence ...
Patent No. 681823
Patent No. 681823
GENERAL INFORMATION:
APPLICANT: Horwitz, Marcus A.
APPLICANT: HOTWITON: Abundant Extracellular
APPLICANT: TAVENTION: Abundant Extracellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
HYPOTHETICAL: N
ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FRAGMENT TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 01
FILING DATE: 12-AUG-1994
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
US 08/289,667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (310) 788-5000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE: 23-NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: MacLean, Kurt A. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
APPLICATION NUMBER: US 08/156,358
FILING DATE: 23-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: MacLean, Kurt A.
REGISTRATION NUMBER: 31,118
                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Kurt A. MacLean
STREET: 2029 Century Park East, Suite 3800
                                                                                                                                                                                                                            Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 DPAKGMSP 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DPSQGMGP 11
                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
                                                                                    APPLICATION NUMBER: US 08/447,398
FILING DATE: 23-MAY-1995
APPLICATION NUMBER: US 08/289,667
FILING DATE: 12-AUG-1994
                                                                                                                                                                                        APPLICATION NUMBER: US/09/953,510 FILING DATE: 14-Sep-2001
                                                                                                                                                                                                                                                                                                                                                                                 CITY: Los Angeles
STATE: California
                                                                                                                                                                            CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mycobacterium tuberculosis
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Pred. No. 71;
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REFERENCE/DOCKET NUMBER: 112-272

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CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 397
LENGTH: 20
TYPE: PRT
ORGANISM: Homo sapiens
US-09-667-857-397
                                                                                                         RESULT 12
US-10-198-053-397
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US-09-667-857-397
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                                                                                                                                                                                                                          Query Match
Best Local Similarity bz...
S; Conservative
Sequence 397, Application US/10198053
PATENT NO. 6859710
GENERAL INFORMATION:
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 397, Applica Patent No. 6699664 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 31.4%; Score 33; DB 2; Length 15; Best Local Similarity 62.5%; Pred. No. 71; Matches 5; Conservative 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Mitcham, Jennifer APPLICANT: King, Gordon E. APPLICANT: Algate, Paul A. APPLICANT: Fling, Steven P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 67: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: peptide HYPOTHETICAL: NO ANTI-SENSE: NO FRAGMENT TYPE: internal ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
TELEPHONE: (310) 788-5000
TELEFAX: (310) 277-1297
                                                                                                                                                                             13 VGEEGVLS 20
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3 IGEDGILS 10
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Fanger, Gary Richard
Reed, Steven G.
Vedvick, Thomas S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 15 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN: Erdman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/09667857
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                                                                                                                                                                                                                                                                   31.4%;
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Pred. No. 99;
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                                                                                                                                                                                                                                                                                     Length 20;
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CURRENT APPLICATION NUMBER: US/10/198,053; CURRENT FILING DATE: 2002-07-17; NUMBER OF SEQ ID NOS: 624; SOFTWARE: FastSEQ for Windows Version 4.0; SEQ ID NO 603; SEQ ID NO 603; LENGTH: 20; TYPE: PRT; ORGANISM: Homo sapiens
US-10-198-053-603
; ORGANISM: Homo sapiens US-09-827-271-397
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US-09-827-271-397
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US-10-198-053-603
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-198-053-397
                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: FANGER, GARY R.
APPLICANT: FOR THE THERAPY AND
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE REFERENCE: 210121.462C6
FILE REFERENCE: 210121.462C6
CURRENT APPLICATION NUMBER: US/09/827,271
CURRENT FILING DATE: 2001-04-04
                                                                                                                                                                                                                                                                                                                Patent No. 6962980
                                                         NUMBER OF SEQ ID NOS: 461
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 397
LENGTH: 20
                                                                                                                                                                                                                                                                                                                                      Sequence 397,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 31.4%; Score 33; DB Best Local Similarity 62.5%; Pred. No. 99; Matches 5; Conservative 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Bangur, Chaitanya S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTMARE: FastSEQ for Windows Version 4.0
SEQ ID NO 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 603, Application US/10198053
Patent No. 6858710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 31.4%;
Best Local Similarity 62.5%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C9
FILE REFERENCE: 210121.462C9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Hill, Paul
                                          TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13 VGEEGVLS 20
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Pred. No. 99;
3; Mismatches
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RESULT 16
US-08-478-572-185
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; FRAGMENT TYPE:
US-08-482-142-185
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US-08-482-142-185
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; Sequence 185, Application US/08478572
                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 466-6000
INFORMATION: FOR SEQ ID NO: 185:
SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 185,
                                                                                                                                     Matches
                                                                                                                                                   Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/445,307
FILING DATE: 07 June 1995
ATTORNEY/AGENT INFORMATION:
NAME: CRAIG, ANNE I.
REGISTRATION NUMBER: 32,976
REGISTRATION NUMBER: 32,976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Chen, Alan APPLICANT: Evans, Sean APPLICANT: Shaked, Ze'ev APPLICANT: Shaked, Ze'ev TITLE OF INVENTION: T CELL EPITOPES OF THE MAJOR ALLERGENS TITLE OF INVENTION: FROM DERMATOPHAGOIDES (HOUSE DUST MITE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII TEXT
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/482,142
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 207
CORRESPONDENCE ADDRESS:
ADDRESSEE: IMMULOGIC PHARMACEUTICAL CORPORATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
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                                                                                                                                                                                                                                          TYPE: amino acid
TOPOLOGY: linear
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                                                                                                     12 IVGEEGVLS 20
                                                                                                                                   l Similarity
5; Conserva
                                                                           6 LVGDDGVLA 14
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                                                                                                                                  29.5%;
nilarity 55.6%;
Conservative
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nilarity 62.5%;
Conservative
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Kuo, Mei-chang
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                             internal
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Pred. No. 99;
                                                                                                                                   Score 31; DB 1; Le
Pred. No. 1.6e+02;
4; Mismatches 0;
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US-08-484-296-185
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                                                                                                                                                                                                            Sequence 185, App.
Patent No. 6268491
                                                                                                                                                                                                                                                                                                                                                                                       Query Match 29.5%;
Best Local Similarity 55.6%;
Matches 5; Conservative
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GENERAL INFORMATION:
                                                                                                                                                                            GENERAL INFORMATION: APPLICANT: Garman,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (617) 466-6040 INFORMATION FOR SEQ ID NO: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: CRAIG, ANNE I.
REGISTRATION NUMBER: 32,976
REFERENCE/DOCKET NUMBER: 017.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 466-6000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII TEXT
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/478,572
FILING DATE: 07-June-1995
CLASSIFICATION:
                                                                                    APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: peptide FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
TYPE: amino acid
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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APPLICANT: Evans, Sean
APPLICANT: Shaked, Ze'ev
TITLE OF INVENTION: FROM DERMATOPHAGOIDES (HOUSE DUST MITE)
TITLE OF INVENTION: FROM DERMATOPHAGOIDES (HOUSE DUST MITE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/445,307
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: IMMULOGIC PHARMACEUTICAL CORPORATION
STREET: 610 LINCOLN STREET
                APPLICANT: Evans, Sean
APPLICANT: Shaked, Ze'ev
TITLE OF INVENTION: FROM DERMATOPHAGOIDES (HOUSE DUST MITE)
                                                                                                                                         APPLICANT:
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NUMBER OF SEQUENCES:
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CITY: WALTHAM
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Kuo, Mei-chang
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Greenstein, Julia
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Franzen, Henry
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Chen, Xian
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                                                                                        Chen, Xian
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Pred. No. 1.6e+02;
4; Mismatches (
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CORRESPONDENCE ADDRESS:
ADDRESSEE: IMMULOGIC PHARMACEUTICAL CORPORATION
STREET: 610 LINCOLN STREET

STREET: 610 LII CITY: WALTHAM STATE: MA

USA

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                                                                                                                    ; FEATURE:
; OTHER INFORMATION: H5 peptide secondary library sequence
US-08-990-888-36
                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/08/990,888B
CURRENT FILING DATE: 197-12-15
NUMBER OF SEQ ID NOS: 81
SOFTWARE: PALENTIN Ver. 2.1
SEQ ID NO 36
LENGTH: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 36, Application US/08990888B Patent No. 6387879 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                     APPLICANT: Blume, Arthur J.
APPLICANT: Brissette, Renee
APPLICANT: Carcamo, Juan
APPLICANT: Mandecki, Wlodeck S.
APPLICANT: Tang, Pauline M.
TITLE OF INVENTION: Assays For Compounds Which Bind Growth Hormone Receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 29.5%;
Best Local Similarity 55.6%;
Matches 5; Conservative
                                     Best Local Similarity
Matches 5; Conserv
                                                                           Query Match
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APPLICATION NUMBER: 08/445,307
FILING DATE: 07 JUNE 1995
ATTORNEY/AGENT INFORMATION:
NAME: CRAIG, ANNE I.
REGISTRATION NUMBER: 32,976
REFERENCE/DOCKET NUMBER: 017.6US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 466-6000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (617) 466-6040 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                             ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPAtible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII TEXT
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: peptide FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/484,296 FILING DATE: CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 16 amino acids
TYPE: amino acid
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6 LVGDDGVLA 14
  5 GMSPPGFIVG 14
                                       Conservative
                                                        29.5%;
50.0%;
                                     Score 31; DB 2;
Pred. No. 1.9e+02;
4; Mismatches 1
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Pred. No. 1.6e+02;
4; Mismatches 0;
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                                     1; Indels
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US-09-635-501-29
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US-09-570-022-13
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                                                                 Query Match
Best Local S
Matches 6
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APPLICANT: GORDON, R.
APPLICANT: MOORAD,
APPLICANT: DCCTOR,
APPLICANT: GARCIA,
APPLICANT: GARCIA,
                                                                                                                                                                                            SEQ ID NO 29
LENGTH: 18
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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LENGTH: 18

TYPE: PRT

ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 29, Application US/09635501 Patent No. 6884771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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Best Local Similarity 54.5%;
Matches 6; Conservative
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APPLICANT: ACTON, SUSAN L. et al.

APPLICANT: ACTON, SUSAN L. et al.

APPLICANT: ACTON, SUSAN L. et al.

TITLE OF INVENTION: DIAGNOSTIC USES THEREFOR

FILE REFERENCE: MNI-132CB

CURRENT APPLICATION NUMBER: US/09/635,501

CURRENT FILING DATE: 2000-08-09

PRIOR APPLICATION NUMBER: 09/407,427

PRIOR FILING DATE: 1999-09-29

PRIOR PRIOR FILING DATE: 1999-09-29

PRIOR APPLICATION NUMBER: 09/163,648

PRIOR APPLICATION NUMBER: 08/989,299

PRIOR APPLICATION NUMBER: 08/989,299

PRIOR APPLICATION NUMBER: 1997-12-11

NUMBER OF SEQ ID NOS: 107

SOPTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 13, Appl:
Patent No. 657324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: MOORAD, DEBORAH R.
APPLICANT: DOCTOR, BHUPENDRA P.
APPLICANT: GARCIA, GREGGRY E.
TITLE OF INVENTION: PREVINS AS SPECIFIC INHIBITORS AND THERAPEUTIC TITLE OF INVENTION: FOR BOTULINUM TOXIN B AND TETANUS NEUROTOXINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/134,446
PRIOR FILING DATE: 1999-05-17
NUMBER OF SEQ ID NOS: 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: 38644-170531
CURRENT APPLICATION NUMBER: US/09/570,022
CURRENT FILING DATE: 2000-05-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.1
1 DPAKGMSPPGF 11 | :|| : || |
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                                                                 Similarity 6; Conserv
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                                                                                     29.5%;
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                                                                 Score 31; DB 2; Louis Pred. No. 1.9e+02; 2; Mismatches 3;
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Pred. No. 1.9e+02
2; Mismatches
                                                                                                       Length 18;
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APPLICANT: FOY, Teresa M.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: COMPOSITIONS OF LUNG CANCER
FILE REFERENCE: 210121.45SC17
CURRENT APPLICATION NUMBER: US/10/007,700
CURRENT FAPLICATION NUMBER: US/10/007,700
CURRENT FAILING DATE: 2001-11-30
NUMBER OF SEQ ID NOS: 469
SOFTWARE: FASESEQ FOR Windows Version 4.0
SEQ ID NO 463
SEQ ID NO 463
LENGTH: 20
TYPE: PRT
ORGANISM: Homo sapiens
US-10-007-700-463
                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 22
US-08-475-955-12
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Best Local S
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APPLICANT:
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                         atent No. 6641813
GENERAL INFORMATION:
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                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 2:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                         APPLICANT: Harley, John
TITLE OF INVENTION: METHODS AND REAGENTS FOR DIAGNOSIS OF
TITLE OF INVENTION: AUTOANTIBODIES
PRIOR APPLICATION DATA
              APPLICATION NUMBER: US/08, FILING DATE: June 7, 1995 CLASSIFICATION: 424
                                                                                                                                                                                                                   STREET: 2800 C
                                                                                                                                                                 COUNTRY: USA
ZIP: 30309-3450
                                                                                                                                                                                                                                                         ADDRESSEE:
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Similarity 62.5%;
5; Conservarium
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Henderson, Robert A.
McNeill, Patricia D.
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Peckman, David W.
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Carter, Darrick
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Fanger, Gary R.
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Fanger, Nei
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2800 One Atlantic Center, 1250 West Peachtree Street
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                                                US/08/475,955
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Pred. No. 2
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2.1e+02;
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US-08-475-955-205
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             COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-TOS/MS-TOS
SOFTWARE: PACENTIN Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/475,955

FILING DATE: June 7, 1995

CLASSIFICATION DATA:
APPLICATION NUMBER: 07/867,819

FILING DATE: APRIL 3, 1992

CLASSIFICATION NUMBER: 07/648,205

APPLICATION NUMBER: 07/648,205

APPLICATION NUMBER: 07/648,205

APPLICATION NUMBER: 07/648,205

APPLICATION NUMBER: 07/648,205

FILING DATE: January 31, 1991

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/472,947

FILING DATE: January 31, 1990

ATTORNAMENT APPLICATION DATA:
APPLICATION NUMBER: 07/472,947

FILING DATE: January 31, 1990
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Best Local Similarity
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Patent No. 6641813
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acids
STRANDEDNESS: single
TOPOLOGY: lingle
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FILING DATE: January 31, 1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/472,947
FILING DATE: January 31, 1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Patrea L. Pabst
STREET: 2800 One Atlantic Center, 1250 West Peachtree Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Pabst, Patrea L.
REGISTRATION NUMBER: 31,284
REFERENCE/DOCKET NUMBER: OMRF114CIP(2)DIV
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 10F0RMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Harley, John TITLE OF INVENTION: METH TITLE OF INVENTION: AUTONOMBER OF SEQUENCES: 218
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FILING DATE: January 31, 1990 ATTORNEY/AGENT INFORMATION:
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LOCATION:
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FILING DATE: April 13, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
ZIP: 30309-3450
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Pred. No. 4.6e+05;
0; Mismatches 1
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                            TELEPHONE: (404)-873-8794
TELEPAX: (404)-873-8795
INFORMATION FOR SEQ ID NO: 20
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
TYPE: amino acid
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APPLICANT: Harley,
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                                                                                                                                                                                                                                                           CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/648,205
FILLNG DATE: January 31, 1991
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ISM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                    NAME: Pabst, Patrea L.
REGISTRATION NUMBER: 31,284
REFERENCE/DOCKET NUMBER: OMF
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                         APPLICATION NUMBER: 07/472,947
FILING DATE: January 31, 1990
ATTORNEY/AGENT INFORMATION:
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LENGTH: 8 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: MET TITLE OF INVENTION: AUT NUMBER OF SEQUENCES: 21 CORRESPONDENCE ADDRESS:
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                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 07/867,819
FILING DATE: April 13, 1992
                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: June 7 CLASSIFICATION: 424
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FILING DATE: June 7, 1995
CLASSIFICATION: 424
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STRANDEDNESS: sir
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TREET: 2800 One Atlantic Center, 1250 West Peachtree Street
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(404) -873-8795
TD NO: 205:
os: single
linear
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83.3%;
                                                                                                                                         31,284
3ER: OMRF114CIP(2)DIV
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Pred. No. 4.6e+05;
0; Mismatches 1
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Search completed: January 26, 2006, 08:07:04 Job time: 19.9598 secs
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US-07-867-819D-12
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                                                                                                                           Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                    LENGTH: 8
TYPE: PRT
ORGANISM: homo sapien
FEATURE:
NAME/KEY: MISC_FEATURE
LOCATION: (1)..(8)
OTHER INFORMATION: Binding site
                                                                                                                                                                                                                                                                                                                  SOFTWARE: Pa
                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Harley, John
TITLE OF INVENTION: Methods and Reagents for Diagnosis of Autoantibodies
FILE REFERENCE: OMRF 114 CIP (2)
CURRENT APPLICATION NUMBER: US/07/867,819D
CURRENT FILING DATE: 1992-04-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 12, Application US/07867819D Patent No. 6897287
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 07/472,947
PRIOR FILING DATE: 1990-01-31
PRIOR APPLICATION NUMBER: 07/648,205
PRIOR FILING DATE: 1991-01-31
NUMBER OF SEQ ID NOS: 161
                                                              3 GMPPPG 8
                                                                                             5 GMSPPG 10
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83.3%;
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Pred. No. 4.6e+05;
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Pred. No. 4.6e+05;
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Result
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Perfect score:
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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
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   1000.0
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2: /cgn2_6/prodata/1/pubpaa/US08_PUBCOMB.pep:*

3: /cgn2_6/prodata/1/pubpaa/US10A_PUBCOMB.pep:*

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PRIOR FILLING DATE: 1999-04-15
PRIOR PELLOATION NUMBER: 60/098,909
PRIOR FILLING DATE: 1998-09-02
PRIOR FILLING DATE: 1998-05-13
PRIOR APPLICATION NUMBER: 60/085,295
PRIOR PELLOATION NUMBER: 60/08,565
PRIOR PELLOATION NUMBER: 60/08,565
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PRIOR APPLICATION NUMBER: 60/062,013
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CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/292,225
PRIOR FILING DATE: 1999-04-15
PRIOR APPLICATION NUMBER: 60/098,909
PRIOR FILING DATE: 1998-09-02
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PRIOR APPLICATION NUMBER: 60/098,565
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Publication No. US20030096779A1
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CURRENT APPLICATION NUMBER: US/10/218,743
CURRENT FILING DATE: 2002-08-13
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SOFTWARE: PatentIn Ver. 2.0
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                                                                    SOFTWARE: PatentIn Ver.
                                                                                          PRIOR FILING DATE: 1998-04-17
NUMBER OF SEQ ID NOS: 49
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US-10-280-066-302
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Publication No.
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Best Local Similarity
Matches 20; Conserv
                                                                                                                                                                                                                                                                                                                                                    Sequence 6, Application US/10012756
Publication No. US20020164355A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn version 3.1 SEQ ID NO 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Pillutla, Renuka C.
APPLICANT: Brissette, Renee
APPLICANT: Spruyt, Michael
APPLICANT: Dedova, Olga
APPLICANT: Blume, Arthur J.
APPLICANT: Prendergast, John
APPLICANT: Prendergast, John
APPLICANT: Goldstein, Neil I.
TITLE OF INVENTION: TARGET SPECIFIC SCREENING AND ITS USE FOR IDENTIFYING TARGET BIND
FILE REFERENCE: 2598-4009US1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/280,066
CURRENT FILING DATE: 2002-10-24
PRIOR APPLICATION NUMBER: 60/345,471
PRIOR FILING DATE: 2001-10-24
NUMBER OF SEQ ID NOS: 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Eschericia coli FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH:
                ZIP: 30306-3450
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Patrea L. Pabst
                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 38
                                                                                                                                                                                                                                                                                         APPLICANT: John B. Harley and Judith A. James
TITLE OF INVENTION: Diagnostics And Therapy Of Epstein-Barr
Virus In Autoimmune Disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DPAKGMSPPGFIVGEEGVLS 20
                                                                                                                                                     CITY: Atlanta
STATE: Georgia
                                                                                                                                                                                                              STREET:
                                                                                                                                    COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/10280066
5. US20030180718A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                  2800 One Atlantic Center
                                                                                                                                                                                             1201 West Peachtree Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33.3%;
53.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 35; DB 4;
Pred. No. 3.7e+02;
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                    Version #1.25
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RESULT 5
US-10-376-121A-116
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IDICERIAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Harley, John
TITLE OF INVENTION: METHODS AND REAGENTS FOR DIAGNOSIS OF
AUTOANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Pabst, Patrea L.
REGISTRATION NUMBER: 31,284
REFERENCE/DOCKET NUMBER: OMRF161
TELECOMMUNICATION INFORMATION:
TELEPHONE: (404)873-8794
TELEPAX: (404)873-8795
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
                                APPLICATION NUMBER: 07/867,819
FILING DATE: April 13, 1992
APPLICATION NUMBER: 07/648,205
FILING DATE: January 31, 1991
APPLICATION NUMBER: 07/472,947
FILING DATE: January 31, 1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                               APPLICATION NUMBER: US/10/376,121A
FILING DATE: 27-Mar-2003
CLASSIFICATION: <UNKnown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                               ZIP: 30309-3400
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PETENTIN Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 218
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESSE: Patrea L. Pabst
STREET: Suite 2000, 1201 West Peachtree Street, N.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ ID NO: 6:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ANTI-SENSE: NO
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FILING DATE: 13-JAN-1997
APPLICATION NUMBER: 60/019,053
FILING DATE: 16-MAY-1996
APPLICATION NUMBER: 08/160,604
FILING DATE: 30-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Atlanta
STATE: GA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/10/012,756 FILING DATE: 24-Oct-2001 CLASSIFICATION: <Unknown>
NAME: Pabst, Patrea L.
REGISTRATION NUMBER: 31,284
                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Application US/10376121A o. US20030216544A1
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75.0%;
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Pred. No. 1.7e+06;
0; Mismatches 2
                                                                                                                                                                                                                                                                                       Version #1.25
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US-10-376-121A-100
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; SEQUENCE DESCRIPTION: SEQ ID NO: 116:
US-10-376-121A-116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 100, Application US/10376121A
Publication No. US20030216544A1
GENERAL INFORMATION:
APPLICANT: Harley, John
TITLE OF INVENTION: METHODS AND REAGENTS
AUTOANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
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                                                                                                                                                                                                  TELEFAX: (404)-817-8588 INFORMATION FOR SEQ ID NO: 100:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 116: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 07/867,819
FILING DATE: April 13, 1992
APPLICATION NUMBER: 07/448,205
FILING DATE: January 31, 1991
APPLICATION NUMBER: 07/472,947
FILING DATE: January 31, 1990
ATTORNEY, AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC COmpatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/376,121A
FILING DATE: 27-Mar-2003
SEQUENCE DESCRIPTION: SEQ ID NO: 100:
                                                                                                                                                                                                                                                        NAME: Pabst, Patrea L.

REGISTRATION NUMBER: 31,284

REFERENCE/DOCKET NUMBER: OMRF114CIP(2)DIV(2)

TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 30309-3400
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Patrea L. Pabst
STREET: Suite 2000, 1201 West Peachtree Street, N.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: OMRF114CIP(2)DIV(2)
TELECOMMUNICATION INFORMATION:
TELEPHONE: (404)-817-8473
                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                           FEATURE:
                                                                          MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 PAKGMSPP 9
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Similarity 75.0
6; Conservative
                   NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Atlanta
STATE: GA
                                                                                                STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                         TYPE: amino acid
                                                                                                                                                                                                                                       TELEPHONE: (404)-817-8473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (404)-817-8588
                                                                                                                                                          LENGTH: 9 amino acids
                         Binding-site
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Version #1.25
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US-09-953-510-67
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                                                                                                                               US-09-953-510-67
                                                          Query Match
Best Local S
Matches 5
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Patent No. US20020131975A1
GENERAL INFORMATION:
APPLICANT: Horvitz, Marcus A.
TITLE OF INVENTION: Abundant Extracellular
Products and Methods for Their Production and Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (310) 277-1
INFORMATION FOR SEQ ID NO: 67:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/447,398
FILING DATE: 23-MAY-1995
APPLICATION NUMBER: US 08/289,667
FILING DATE: 12-AUG-1994
APPLICATION NUMBER: US 08/156,358
FILING DATE: 23-NOV-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: MacLean, Kurt A.
REGISTRATION NUMBER: 31.1
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                  ORIGINAL SOURCE:
ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                      STRANDEDNESS: <Unknown>
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                      FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                         HYPOTHETICAL: NO
                                                                                                                                                                                                                                          ANTI-SENSE: NO
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                         1 DPAKGMSP 8
                                                          Similarity
5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/953,510 FILING DATE: 14-Sep-2001 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 2029 Century Park East, Suite 3800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                     STRAIN: Erdman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Kurt A. MacLean
                                                                                                                                                                                                                                                                                                                            LENGTH: 15 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                 (310) 788-5000
310) 277-1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32.48;
                                                                            31.4%;
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                                                                            Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31,118
                                                             ed. No. 5.4e+02;
Mismatches 1
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                                                                                                                                                   67:
                                                                                                DB 3;
                                                                                              Length 15;
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RESULT 9
US-10-147-255-67
US-10-147-255-67; Sequence 67, Application US/10147255; Publication No. US20030152584A1; GENERAL INFORWATION:
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STRAIN: Erdman
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SEQUENCE DESCRIPTION: SEQ ID NO:
US-09-953-413-67
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                                                                       Best Local Similarity
Matches 5; Conserv
                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Horwitz,
                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 67:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Kurt A. MacLean
STREET: 2029 Century Park East, Suite 3800
                                                                                                                                                                                                                               FRAGMENT TYPE: internal ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: peptide HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/953,413
                                                                                                                                                                                                                                                                     ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                              LENGTH: 15 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/447,398
FILING DATE: 23-MAY-1995
APPLICATION NUMBER: US 08/289,667
FILING DATE: 12-AUG-1994
DPSQGMGP 11
                                 DPAKGMSP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: MacLean, Kurt A REGISTRATION NUMBER: :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 08/156,358 FILING DATE: 23-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 14-Sep-2001
                                                                                                                                                                                                           ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (310)
                                                                       Conservative
                                                                                                                                                                                                                                                                                 . peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                            (310) 788-5000
$10) 277-1297
                                                                                           31.4%;
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Abundant Extracellular
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                                                                                             Score 33; DB 3;
Pred. No. 5.4e+02;
                                                                           Mismatches
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                                                                                                             Length 15;
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US-10-695-155-67
Sequence 67. Application US/10695155
Publication No. US20040228873A1
GENERAL INFORMATION:
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                                                                                                                                                                                                           RESULT 10
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REGISTRATION NUMBER: 31,118
REFERENCE/DOCKET NUMBER: 112-:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (310) 788-5000
TELEPAX: (310) 277-1297
INFORMATION FOR SEQ ID NO: 67:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                       Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                               Query Match
APPLICANT: HORWITZ, MARCUS A.
APPLICANT: HARTH, GUNTER
APPLICANT: LEE, BAI-YU
TITLE OF INVENTION: ABUNDANT EXTRACELLULAR PRODUCTS AND METHODS FOR THEIR PRODUCTION
TITLE OF INVENTION: AND USE
FILE REFERENCE: 51326-00004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FRAGMENT TYPE: internal
ORIGINAL SOURCE:
ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 08/156,358 FILING DATE: 23-NOV-1993 ATTORNEY/AGENT INFORMATION:
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ADDRESSEE: Kurt A. MacLean
STREET: 2029 Century Park East, Suite 3800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Horwitz, Marcus A.
TITLE OF INVENTION: Abundant Extracellular
Products and Methods for Their Production and Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: peptide HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                       Similarity
5; Conser
                                                                                                                                                                                                                                                                                                              DPAKGMSP 8
                                                                                                                                                                                                                                                                       DPSQGMGP 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN: Erdman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/10/147,255 FILING DATE: 15-May-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: U.S.A. ZIP: 90067
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENGTH: 15 amino acids
                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                        31.4%;
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Pred. No. 5.4e+02;
2; Mismatches 1;
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US-09-907-969-397
Sequence 397, Application US/09907969
Publication No. US20030091580A1
GENERAL INFORMATION:
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Best Local Similarity
Thes 5; Conservat
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US-09-884-441-397
                                                                                                                                                                                                                                                                                                                                                         US-09-884-441-397
                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 489
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 397
LENGTH: 20
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Algate, Paul A.
APPLICANT: Carter, Darrick
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
                                                                                                                                                                                                                                                                               Best Loc
Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. US20020119158A1
                 APPLICANT: Mitcham,
APPLICANT: King, G
APPLICANT: Algate,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 1994-08-12
PRIOR APPLICATION NUMBER: 08/156,358
PRIOR FILING DATE: 1993-11-23
PRIOR APPLICATION NUMBER: 08/545,926
PRIOR FILING DATE: 1995-10-20
NUMBER OF SEQ ID NOS: 167
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CURRENT FILING DATE: 2003-10-27
PRIOR APPLICATION NUMBER: 08/652,842
PRIOR FILING DATE: 1996-03-23
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PRIOR FILING DATE: 1995-12-06
PRIOR APPLICATION NUMBER: 08/551,149
PRIOR FILING DATE: 1995-10-31
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TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 08/447,398 FILING DATE: 1995-05-23
                                                                                                                                                                                                                                          13 VGEEGVLS 20
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King, Gordon E.
Algate, Paul A.
Fling, Steven P.
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                                                                                                                                                                                                                                                                                 Conservative
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                                                          Jennifer L.
                                                                                                                                                                                                                                                                                                 31.4%;
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Pred. No. 7.4e+02;
3; Mismatches 0
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Pred. No. 5.4e+02;
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Retter, Marc W. Fanger, Gary Richard

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APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C6
CURRENT APPLICATION NUMBER: US/09/827,271
CURRENT FILING DATE: 2001-04-04
NUMBER OF SEQ ID NOS: 461
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 397
LENGTH: 20
TYPE: PRT
ORGANISM: Homo sapiens
US-09-827-271-397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Hill, Paul
APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C8
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 397
LENGTH: 20
TYPE: BRT
ORGANISM: Homo sapiens
US-09-907-969-397
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US-09-827-271-397
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Publication No. US20030124140A1
GENERAL INFORMATION:
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Best Local
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APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31.48;
Local Similarity 62.5%;
les 5; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Reed, Steven G.
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o. US20030165504A1
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62.5%;
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Pred. No. 7.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 33; DB 3; Le
Pred. No. 7.4e+02;
3; Mismatches 0;
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CURRENT APPLICATION NUMBER: US/10/198,053; CURRENT FILING DATE: 2002-07-17; NUMBER OF SEQ ID NOS: 624; SOFTWARE: FASTSEQ for Windows Version 4.0; SEQ ID NO 603; SEQ ID NO 603; LENGTH: 20; TYPE: PRT; ORGANISM: Homo sapiens
US-10-198-053-603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens US-10-198-053-397
                                                                                                                                                                                                                                                                                                                                                                                           US-10-860-790-397; Sequence 397, Application No. US200; Publication No. US200; GENERAL INFORMATION:
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                                                                                                                    ; ORGANISM: Homo sapiens US-10-860-790-397
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                                                                                                                                                  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C11
CURRENT APPLICATION NUMBER: US/10/860,790
CURRENT FILING DATE: 2004-06-02
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 397
LENGTH: 20
TYPE: PRT
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Matches 5; Conserv
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APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
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13 VGEEGVLS 20
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Pred. No. 7.4e+02;
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Pred. No. 7.4e+02;
3; Mismatches 0
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Pred. No. 7.
                                                     Mismatches
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Query Match
Best Local Similarity
Marches 5; Conserve
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US-10-860-790-603
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US-10-860-790-603
                                            CURRENT APPLICATION NUMBER: US/10/661,156
CURRENT FILING DATE: 2003-09-11
PRIOR APPLICATION NUMBER: US 10/382,082
PRIOR FILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: PCT/US03/06731
PRIOR FILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: US 60/440,411
PRIOR PILING DATE: 2003-01-15
PRIOR APPLICATION NUMBER: US 60/360,851
PRIOR APPLICATION NUMBER: US 60/360,851
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SOFTWARE: FRSTSEQ for Windows Version 4.0
SEQ ID NO 603
LENGTH: 20
TYPE: PRT
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Publication No. US20
GENERAL INFORMATION:
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TITLE OF INVENTION: KDR and VEGF/KDR Binding Peptides and
TITLE OF INVENTION: Their Use in Diagnosis and Therapy
FILE REFERENCE: D0617.70012US00
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CURRENT APPLICATION NUMBER: US/10/860,790
CURRENT FILING DATE: 2004-06-02
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APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
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                               PRIOR FILING DATE: 2002-03-01
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Fan, Hong
Fan, Sudha
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Linder, Karen E.
Marinelli, Edmund R.
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Dransfield, Daniel T.
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DS20050031634A1
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Pred. No. 7.4e+02;
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LENGTH: 15

TYPE:.PRT

ORGANISM: Artificial Sequence
FEATURE:
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LENGTH: 20
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Best Local Similarity
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Best Local Similarity
PRIOR APPLICATION NUMBER: 60/200,065
PRIOR FILING DATE: 2001-04-20
PRIOR FILING DATE: 2000-04-27
NUMBER OF SEQ ID NOS: 26
                                                                    APPLICANT: Van Heuit, Pam T
APPLICANT: Wu, John
TITLE OF INVENTION: DNA Encoding a No. US20020009455A1el PROST
FILE REFERENCE: 51831AUSM1
CURRENT APPLICATION NUMBER: US/09/838,785
CURRENT FILING DATE: 2001-04-20
                                                                                                                                                                                                                                       APPLICANT: Lau, Ted
APPLICANT: Lin, Rick
APPLICANT: Parkes, Do
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APPLICANT: Metabolex, Inc.
APPLICANT: Metabolex, Inc.
TITLE OF INVENTION: Nucleic Acids Encoding a G-Protein Coupled Receptor
TITLE OF INVENTION: Involved in Islet Cell Signaling
FILE REFERENCE: 016325-007210US
CURRENT APPLICATION NUMBER: US/10/328,916
CURRENT FILING DATE: 2003-01-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US 60/345,697
PRIOR FILING DATE: 2002-01-04
NUMBER OF SEQ ID NOS: 59
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TYPE: PRT
ORGANISM: Artificial Sequence
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Parry, Gordon
Schneider, Douglas
Steinbrecher, Renat
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Pred. No. 7.4e+02;
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Pred. No. 7.6e+02;
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US-09-838-785-26
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SEQ ID NO 26
LENGTH: 16
               Remaining Prior Application data removed -
NUMBER OF SEQ ID NOS: 901
SOFTWARE: PATENTIN Ver. 3.3
SEQ ID NO 593
LENGTH: 16
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/10/953,901
CURRENT FILING DATE: 2004-09-29
PRIOR APPLICATION NUMBER: PCT/CA03/00465
PRIOR FILING DATE: 2003-04-04
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TITLE OF INVENTION: NOVEL PURIFIED POLYPEPTIDES FROM BACTERIA
FILE REFERENCE: IPT-207.01
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TYPE: PRT
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ORGANISM: Staphylococcus aureus
                                                                                                              APPLICATION NUMBER: 60/371,180 FILING DATE: 2002-04-09 APPLICATION NUMBER: 60/371,008 FILING DATE: 2002-04-09
                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/369,831
FILING DATE: 2002-04-04
APPLICATION NUMBER: 60/369,819
FILING DATE: 2002-04-04
                                                                                                                                                                                 APPLICATION NUMBER: 60/371,014 FILING DATE: 2002-04-09
                                                                                                                                                                                                                APPLICATION NUMBER: 60/370,681 FILING DATE: 2002-04-08
                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/369,826
FILING DATE: 2002-04-04
APPLICATION NUMBER: 60/370,852
                                                                                                                                                                                                                                                  FILING DATE: 2002-04-08
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DHARAMSI, AK
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VIRAG, CRISTINA
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ALAM, MUHAMMAD ZAHOOR
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MCDONALD, MERRY-LYNN
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BUZADZIJA, KRISTINA
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HOUSTON, SIMON
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nilarity 55.6%;
Conservative
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o. US20050181464A1
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Pred. No. 8.2e+02
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                                                                                               See File Wrapper or PALM
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APPLICANT: Von Wronski, Mathew A.
TITLE OF INVENTION: KDR and VEGF/KNR Binding Peptides and
TITLE OF INVENTION: Their Use in Diagnosis and Therapy
FILE REFERENCE: D0617.70012US00
CURRENT APPLICATION NUMBER: US/10/661,156
CURRENT FILING DATE: 2003-09-11
PRIOR APPLICATION NUMBER: US 10/382,082
PRIOR PILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: PCT/US03/06731
PRIOR APPLICATION NUMBER: US 60/440,411
PRIOR FILING DATE: 2003-03-03
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Best Local Similarity
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US-10-661-156-170
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 170
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TYPE: PRT
ORGANISM: Artificial Sequence
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PPGFSYWEQAAL 13
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Linder, Karen E.
Marinelli, Edmund R.

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Bussat, Philippe
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Dransfield, Daniel T.
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Pochon, Sibylle
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o. US20050100963A1
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RESULT 23
US-10-307-956-25
; Sequence 25, Application US/10307956
; Publication No. US20030119072A1
; GENERAL INFORMATION:

APPLICANT: Hoekstra, Merl F.

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RESULT 25
US-10-950-163-8
; Sequence 8, Application US/10950163
; Publication No. US20050152911A1
; GENERAL INFORMATION:
; APPLICANT: Hardy, Michele
; TITLE OF INVENTION: NOROVIRUS MONOCLONAL ANTIBODIES AND PEPTIDES
; FILE REFERENCE: 33576/US/2
; CURRENT APPLICATION NUMBER: US/10/950,163
; CURRENT FILING DATE: 2004-09-24
; PRIOR APPLICATION NUMBER: US 60/508,262
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US-10-211-088-356
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; TYPE: PRT
; ORGANISM: Homo sapien
US-10-307-956-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: Post-translational modification site US-10-211-088-356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: NO. US20030104479A1el Fusion Proteins And Assays For Molecular Bi FILE REFERENCE: 01-1022-US CURRENT APPLICATION NUMBER: US/10/211,088 CURRENT FILLING DATE: 2002-10-15 PRIOR APPLICATION NUMBER: 60/309,395 PRIOR FILING DATE: 2001-08-01 PRIOR APPLICATION NUMBER: 60/341,589 PRIOR FILING DATE: 2001-12-13 NUMBER OF SEQ ID NOS: 366 SOFTMARE: Patentin version 3.1 SEQ ID NO 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 356, Application US/10211088 Publication No. US20030104479A1 GENERAL INFORMATION:
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Best Local Similarity 38.5%;
Matches 5; Conservative "
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Bright, Gary R. APPLICANT: Premkumar, D. 1
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CURRENT FILING DATE: 2002-12-02
PRIOR APPLICATION NUMBER: US/09/385,918
PRIOR FILING DATE: 1999-08-30
NUMBER OF SEQ ID NOS: 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: METHODS FOR MODULATING SIGNAL TITLE OF INVENTION: TRANSDUCTION MEDIATED BY TGF-BETA AND RELATED PROTEINS FILE REFERENCE: 860098.433
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TYPE: PRT
ORGANISM: Artificial sequence
PEATURE:
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Chen, Yih-Tai
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US-10-893-584-212
US-11-054-515-3003
US-11-143-984A-164
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US-10-939-890-170
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US-10-939-890-146
                                                                             Sequence 170, Application US/10939890 Publication No. US20050250700A1 GENERAL INFORMATION:
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LENGTH: 20
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                            APPLICANT: Sato, Aaron K. APPLICANT: Sexton, Danie APPLICANT: Dransfield, D
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NUMBER OF SEQ ID NOS: 883
SOFTWARE: FastSEQ for Windows Version 4.0
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PRIOR FILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: PCT/US03/06731
PRIOR FILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: US 60/440,411
PRIOR FILING DATE: 2003-01-15
PRIOR FILING DATE: 2003-01-15
PRIOR APPLICATION NUMBER: US 60/360,851
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TITLE OF INVENTION: KOR AND VEGF/KDR BINDING PEPTIDES
FILE REFERENCE: DD617.70014US00
CURRENT APPLICATION NUMBER: US/10/939,890
CURRENT FILING DATE: 2004-09-13
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APPLICANT:
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Linder, Karen E.
Marinelli, Edmund R.
Nanjappan, Palaniappa
Nunn, Adrian D.
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Pochon, Sibylle
Pochon, Kondareddiar
              Sexton, Daniel J.
Dransfield, Daniel T.
Ladner, Robert C.
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Dransfield, Daniel T.
Ladner, Robert C.
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US-11-033-039-1324
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Pred. No. 19;
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Sequence 1324, Ap
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US-10-623-155-463
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                                                                                                                             CURRENT APPLICATION NUMBER: US/10/623,155
CURRENT FILING DATE: 2003-07-17
NUMBER OF SEQ ID NOS: 560
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 463
LENGTH: 20
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 170
LENGTH: 20
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APPLICANT:
APPLICANT:
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TITLE OF INVENTION: KDR AND VEGE/KDR BINDING PEPTIDES
FILE REFERENCE: D0617.70014US00
CURRENT APPLICATION NUMBER: US/10/939,890
CURRENT FILING DATE: 2004-09-13
                                                                                                                                                                                                                                                    APPLICANT: Wang, Tongtong
APPLICANT: Peckham, David W.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
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PRIOR FILING DATE: 2003-09-11
PRIOR APPLICATION NUMBER: US 10/382,082
PRIOR FILING DATE: 2003-03-03
PRIOR APPLICATION NUMBER: PCT/US03/06731
PRIOR FILING DATE: 2003-03-03
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PRIOR FILING DATE: 2003-01-15
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                                                                                                 TYPE: PRT ORGANISM: Homo sapiens
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OTHER INFORMATION: Library Isolate
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Local Similarity 50.0%;
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Linder, Karen E.
Marinelli, Edmund R.
Nanjappan, Palaniappa
Nunn, Adrian D.
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Pochon, Sibylle
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b. US20050261166A1
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              Score 31; DB Pred. No. 39; 0; Mismatches
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CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FASTSEQ for Windows Version 4.0
; SEQ ID NO 413
; SEQ ID NO 413
; LENGTH: 20
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-413
RESULT 6
US-10-623-155-524

/ Sequence 524, Application US/10623155

/ Publication No. US20050261166A1

/ GENERAL INFORMATION:
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US-10-623-155-541
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APPLICANT: Panger, Gary R.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.455C20
CURRENT APPLICATION NUMBER: US/10/623,155
CURRENT FILING DATE: 2003-07-17
NUMBER OF SEQ ID NOS: 560
SOFTWARE: FABTSEQ for Windows Version 4.0
SEQ ID NO 541
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                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Wang, Tongtong
APPLICANT: Peckham, David W.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Fanger, Gary R.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
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62.5%;
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Pred. No. 39;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/11/094,142
CURRENT FILING DATE: 2005-03-31
NUMBER OF SEQ ID NOS: 47
SOFTWARE: PATENTIN VERSION 3.3
SEQ ID NO 16
                                                                                                                                                                                                  Sequence 25, Application US/10889197
Publication No. US20050271689A1
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SEQ ID NO 524
LENGTH: 20
TYPE: PRT
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Best Local Similarity 55.6%;
Matches 5; Conservative
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Publication No.
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Best Local Similarity
Matches 5; Conserv
APPLICANT: HUANG, CHUN-MING
APPLICANT: ZHANG, JIANFENG
APPLICANT: ZHANG, JIANFENG
APPLICANT: TANG, DE-CHU
TITLE OF INVENTION: NOVEL TARGETS AND COMPOSITIONS FOR USE IN
TITLE OF INVENTION: DECONTAMINATION, IMMUNOPROPHYLAXIS, AND POST-EXPOSURE
TITLE OF INVENTION: THERAPY AGAINST ANTHRAX
FILE REFERENCE: 958610-2006.1
CURRENT APPLICATION NUMBER: US/10/889,197
CURRENT FILING DATE: 2004-07-12
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TITLE OF INVENTION: ANTIGEN ARRAY AND DIAGNOSTIC USES THEREOF
FILE REFERENCE: 29462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Cohen, Irun R.
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APPLICANT: Fanger, Gary R.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.455C20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 560
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CURRENT FILING DATE: 2003-07-17
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APPLICANT: Peckham, David W.
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TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
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Domany, Eytan
Elizur, Gad
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To. US20050260770A1
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62.5%;
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Pred. No. 79;
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                                                                                                        ; OTHER INFORMATION: Library Isolate US-10-939-890-203
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                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/939,890
CURRENT FILING DATE: 2004-09-13
PRIOR APPLICATION NUMBER: US 10/661,156
PRIOR FILING DATE: 2003-09-11
PRIOR APPLICATION NUMBER: US 10/382,082
PRIOR FILING DATE: 2003-03-03
PRIOR FILING DATE: 2003-03-03
PRIOR FILING DATE: 2003-03-03
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LENGTH: 12
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                                           Matches
                                                                       Query Match
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SOFTWARE: PatentIn Ver. 3.2
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                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 60/360,851
PRIOR FILING DATE: 2002-03-01
NUMBER OF SEQ ID NOS: 883
                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Von Wronski, Mathew A.
TITLE OF INVENTION: KDR AND VEGF/KDR BINDING PEPTIDES
FILE REFERENCE: D0617.70014US00
                                                                                                                                                                  LENGTH: 15
TYPE: PRT
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                                                                                                                                    ORGANISM: Artificial Sequence FEATURE:
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                                                            Local
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2 PAKGMSP 8
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                                           Similarity 71.4
5; Conservative
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Similarity 55.6%;
5; Conservative
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Arbogast, cur
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Linder, Karen E.
Marinelli, Edmund R.
Manjappan, Palaniappa
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Ladner, Robert C.
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                                                            26.7%;
71.4%;
                                              0; Mismatches
                                                            Score 28; DB Pred. No. 81;
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Pred. No. 63;
                                                                         DB 6; Length 15;
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CURRENT APPLICATION NUMBER: US/10/893,584
CURRENT FILING DATE: 2004-07-19
PRIOR APPLICATION NUMBER: US 09/551,151
PRIOR FILING DATE: 2000-04-14
PRIOR FILING DATE: 2000-04-14
PRIOR FILING DATE: 1999-10-29
PRIOR APPLICATION NUMBER: US 10/089,058
PRIOR APPLICATION NUMBER: US 10/089,058
PRIOR APPLICATION NUMBER: US 10/089,058
PRIOR FILING DATE: 2000-10-04
NUMBER OF SEQ ID NOS: 274
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 212
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US-10-893-584-212
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; ORGANISM: Homo sapiens
US-11-054-515-3003
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PRIOR FILLING DATE: 2004-02-11
PRIOR PELLING DATE: 2004-06-18
PRIOR FILLING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILLING DATE: 2001-11-16
PRIOR FILLING DATE: 2001-11-16
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SEQ ID NO 3003
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Best Local
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APPLICANT: Braun, Curris
APPLICANT: Purac, Admir
APPLICANT: Stoll, Dominik
TITLE OF INVENTION: Ricin-Like Toxin Variants for Treatment of Cancer,
TITLE OF INVENTION: Viral or Parasitic Infections
                                                                                                                                                                                                                                                                      FILE REFERENCE: 10447-025
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CURRENT FILING DATE: 2005-02-10
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PRIOR APPLICATION NUMBER: 60/240,816
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Pred. No. 87;
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; Sequence 78, Application US/11145861
; Publication No. US20060014138A1
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/ LENGTH: 20
/ TYPE: PRT
/ ORGANISM: E. coli
US-10-893-584-212

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US-11-058-735-60
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                                                                                                                       ; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-145-861-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: PRT
; ORGANISM: Mus musculus
US-11-058-735-60
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SOFTWARE: PatentIn version 3.3
SEQ ID NO 78
LENGTH: 11
TYPE
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CURRENT FILING DATE: 2005-02-14
PRIOR APPLICATION NUMBER: 60/544,748
PRIOR FILING DATE: 2004-02-13
NUMBER OF SEQ ID NOS: 80
SOFTWARE: Patentin Ver. 3.3
SEQ ID NO 60
LENGTH: 21
                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                             Matches
                                                                          Query Match
Best Local Similarity
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Best Local Similarity
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                                                                                                                                                                                                                                        APPLICANT: Chinnaiyan, Arul
APPLICANT: Wang, Xiaoju
TITLE OF INVENTION: Phage Microarray Profiling
FILE REFERENCE: UM-09899
CURRENT APPLICATION NUMBER: US/11/145,861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: SOLID-PHASE CAPTURE-RELEASE-TAG METHODS FOR TITLE OF INVENTION: PHOSPHOPROTEOMIC ANALYSES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: TSENG, HUANG-C
APPLICANT: TSAI, LI-HUEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: HMV-094.01
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                              11 FIVGEEGVL 19
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3 FLEGEEQIL 11
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Similarity 38.5%;
5; Conservation
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                                                             Conservative
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62.5%;
                                                                         25.7%;
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; Pred. No. 1.2e
1; Mismatches
                                                          Score 27; DB Pred. No. 81; 2; Mismatches
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Pred. No. 1.1e+02;
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.2e+02;
2;
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                                                                                                                                                                              ; OTHER INFORMATION: PEPGEN P15 (TM) SYNTHETIC PEPTIDE US-10-516-676-1
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PRIOR FILING DATE: 2000-12-20
PRIOR APPLICATION NUMBER: US 60/280,186
PRIOR FILING DATE: 2001-03-30
PRIOR APPLICATION NUMBER: US 60/287,735
PRIOR APPLICATION NUMBER: US 60/295,848
PRIOR APPLICATION NUMBER: US 60/295,848
PRIOR FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: US 60/300,465
PRIOR FILING DATE: 2001-06-25
PRIOR FILING DATE: 2001-06-25
PRIOR PRICING DATE: 2001-06-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/10516676 Publication No. US20050244393A1
                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 1
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                                                                                        Matches
                                                                                                                                  Query Match
                                                                                                                                                                                                                      LENGTH: 15
TYPE: PRT
ORGANISM: Artificial Sequence
PEATURE:
OTHER INFORMATION: Synthesized
FEATURE:
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NUMBER OF SEQ ID NOS: 1
SOFTWARE: PatentIn version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/516,676
CURRENT FILING DATE: 2004-12-03
PRIOR APPLICATION NUMBER: 10/176,401
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TITLE OF INVENTION: SEALANT OR TISSUE GENERATING PRODUCT
FILE REFERENCE: 232037
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CURRENT APPLICATION NUMBER: US/11/143,984A
CURRENT FILING DATE: 2005-06-02
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APPLICANT: Brasseur, Michele
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TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL HUMAN PHOSPHATASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 14
TYPE: PRT
                                                                                                           Match 25.7%;
Local Similarity 40.0%;
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                                         5 GMSPPGFIVGEEGVL 19
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GTPGPQGIAGQRGVV 15
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                                                                                                             Score 27; DB 6;
Pred. No. 1.2e+02;
                                                                                        Mismatches
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2;
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RESULT 16 US-10-532-426-2

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                                                                                                                                     ; ORGANISM: Homo US-11-054-515-2153
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publication No. US20060009516A1
GENERAL INFORMATION:
APPLICANT: Rosenberg, Lawrence
TITLE OF INVENTION: USE OF INGAP FOR REVERSING DIABETES
FILE REFERENCE: 1912-0308PUS1
CURRENT APPLICATION NUMBER: US/10/532,426
CURRENT FILING DATE: 2005-04-22
PRIOR STILING DATE: 2005-04-22
PRIOR RAPPLICATION NUMBER: US 60/420,677
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SEQ ID NO 2153
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NUMBER OF SEQ ID NOS: 2
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 2
                                                          Matches
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Best Local (
                                                                                             Query Match
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PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILING DATE: 2001-11-16
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CURRENT FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/543,296
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TYPE: PRT
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TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
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TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/340,817 FILING DATE: 2001-12-19
                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/240,816
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                                                                                                                                                                                                                                                                                                                 FILING DATE: 2001-03-16
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1 DPAKGMSPPGF 11
                                                    25.7%;
Similarity 54.5%;
6; Conservation
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Similarity 50.0%;
5; Conservative
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                                                                            Score 27; DB 7;
Pred. No. 1.2e+02;
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Pred. No. 1.2e+02;
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APPLICANT: Ruben et al.

ITITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PF523P3

CURRENT APPLICATION NUMBER: US/11/054,515

CURRENT APPLICATION NUMBER: 005-02-10
PRIOR APPLICATION NUMBER: 00/543,296
PRIOR FILING DATE: 2004-02-11
PRIOR PELICATION NUMBER: 60/580,347
PRIOR PELICATION NUMBER: 60/580,347
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR APPLICATION NUMBER: 60/31,469
PRIOR FILING DATE: 2002-11-14
PRIOR PELICATION NUMBER: 60/31,469
PRIOR PELICATION NUMBER: 60/31,469
PRIOR PELICATION NUMBER: 60/31,469
PRIOR PELICATION NUMBER: 60/31,469
PRIOR PELICATION NUMBER: 60/340,817
PRIOR APPLICATION NUMBER: 60/340,817
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US-11-054-515-2783
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US-11-054-515-2780
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PRIOR FILLING DATE: 2001-06-15
PRIOR PELLOATION NUMBER: 60/293,499
PRIOR FILLING DATE: 2001-05-25
PRIOR FILLING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILLING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR APPLICATION NUMBER: 60/240,816
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PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 10/293,418
PRIOR FILING DATE: 2002-11-14
PRIOR APPLICATION NUMBER: 60/331,469
PRIOR FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: 60/340,817
PRIOR FILING DATE: 2001-12-19
PRIOR FILING DATE: 2001-12-19
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SEQ ID NO 2780
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Publication No. US20
GENERAL INFORMATION:
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Best Local Similarity
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CURRENT APPLICATION NUMBER: US/11/054,515
CURRENT FILING DATE: 2005-02-10
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APPLICATION NUMBER: 60/293,499
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Pred. No. 1.2e+02
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US-11-054-515-2783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn version 3.3
SEQ ID NO 18
LENGTH: 20
                                                                                                                                           Sequence 598, Application US/10485788A Publication No. US20050282743A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Remaining Prior Application data removed - See File Wrapper or PALM. NUMBER OF SEQ ID NOS: 3247 SEQ ID NO 2783
                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: CHILKOTI, ASHULOSH
TITLE OF INVENTION: FUSION PEPTIDES ISOLATABLE BY PHASE TRANSITION
FILE REFERENCE: 4176-101 CIP
CURRENT APPLICATION NUMBER: US/11/053,100
CURRENT FILING DATE: 2005-02-08
PRIOR APPLICATION NUMBER: US 09/812,382
PRIOR FILING DATE: 2001-03-20
PRIOR APPLICATION NUMBER: US 60/190,659
PRIOR APPLICATION NUMBER: US 60/190,659
PRIOR FILING DATE: 2000-03-20
PRIOR FILING DATE: 2000-03-20
PRIOR FILING DATE: 2000-03-20
PRIOR FILING DATE: 2000-03-20
PRIOR FILING DATE: 2000-03-20
PRIOR FILING DATE: 2000-03-20
                                                    APPLICANT: Lu, Peter S.
APPLICANT: Rabinowitz, Joshua D.
APPLICANT: Schweizer, Johannes
                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/240,816 PRIOR FILING DATE: 2000-10-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 2001-03-21 PRIOR APPLICATION NUMBER: 60/276,248 PRIOR FILING DATE: 2001-03-16
                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: REPEAT
LOCATION: (1)..(20)
OTHER INFORMATION: ELP1 [KIV2F1-4]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Synthetic Construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
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CANT: Carrick, Deanna Marie
CANT: Arbor Vita Corporation
OF INVENTION: Molecular Interactions in Cells
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Pred. No. 1.6e+02;
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Pred. No. 1.2e+02;
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-485-788A-598
                                                                       Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                   SEQ ID NO 10
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APPLICANT: TURNELL, William G.
APPLICANT: DeFIFE, Kristin M.
APPLICANT: GRAKO, Kathryn A.
TITLE OF INVENTION: BIOACTIVE STENTS FOR TYPE II DIABETICS AND METHODS FOR USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: MEDIV2030-3
CURRENT APPLICATION NUMBER: US/11/147,994
CURRENT FILING DATE: 2005-06-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/360,061
PRIOR FILING DATE: 2002-02-25
PRIOR APPLICATION NUMBER: WO PCT/US02/24655
PRIOR EILING DATE: 2002-08-02
NUMBER OF SEQ ID NOS: 841
SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 11
SOFTWARE: PatentIn version 3.3
                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 11/098,891
PRIOR FILING DATE: 2004-04-04
PRIOR APPLICATION NUMBER: US 60/559,937
PRIOR FILING DATE: 2004-04-05
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                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial sequence
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100.0%; Pred. No. 5.8e+04;
tive 0; Mismatches 0;
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Pred. No. 1.9e+02;
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US-11-178-269-27; Sequence 27, Application US/11178269; Publication No. US20050272661A1

GENERAL INFORMATION:

APPLICANT: Richelson,

Elliott

APPLICANT:

Cusack, Bernadette Marie Pang, Yuan-Ping McCormick, Daniel J.

Faug, Abdul

RESULT 23

TITLE OF INVENTION: NEO-TRYPTOPHAN

Beth Marie

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; FEATURE:
; OTHER INFORMATION: Synthetic peptide
US-11-043-788-482
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US-11-147-994-8
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LENGTH: 9
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
FOTHER INFORMATION: Synthetically generated peptide
US-11-178-269-27
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Matches 4
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PRIOR FILING DATE: 2004-06-01
PRIOR APPLICATION NUMBER: US/10/265,099
PRIOR APPLICATION NUMBER: US/09/755,638
PRIOR APPLICATION NUMBER: US/09/755,638
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/289,693
PRIOR FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/098,119
PRIOR FILING DATE: 1998-08-27
Sequence 8, Application US/11147994 Publication No. US20060013855A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 482, Application US/11043788
Publication No. US20060014166A1
GENERAL INFORMATION:
APPLICANT: Compugen Ltd
TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES,
TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
FILE REFERENCE: 1847.1006
                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/11/043,788
CURRENT FILING DATE: 2005-01-27
NUMBER OF SEQ ID NOS: 506
SEQ ID NO 482
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Best Local
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NUMBER OF SEQ ID NOS: 30
SOFTWARE: FastSEQ for Windows Version 4.0
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CURRENT APPLICATION NUMBER: US/11/178,269
CURRENT FILING DATE: 2005-07-08
                                                                                                                                                                                                                                                                                                                          LENGTH: 9
TYPE: PRT
ORGANISM: Artificial
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Pred. No. 5.8e+04;
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APPLICANT: CARPENTER, Kenneth W.
APPLICANT: TURNELL, William G.
APPLICANT: DEFIFE, Kristin M.
APPLICANT: GERKO, Kathryn A.
ITILE OF INVENTION: BIOACTIVE STENTS FOR TYPE II DIABETICS AND METHODS FOR USE
ITILE OF INVENTION: BIOACTIVE STENTS FOR TYPE II DIABETICS AND METHODS FOR USE
CURRENT APPLICATION NUMBER: US/11/147,994
CURRENT APPLICATION NUMBER: US/11/147,994
CURRENT FILING DATE: 2005-06-07
PRIOR APPLICATION NUMBER: US/11/090,891
PRIOR APPLICATION NUMBER: US/1090,891
PRIOR FILING DATE: 2004-04-04
PRIOR FILING DATE: 2004-04-05
INMBER OF SEQ ID NOS: 11
SOFTWARE: PatentIn version 3.3
SEQ ID NO 8
LENGTH: 9
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                                                                                                                                                             US-11-147-994-8
                                                                          Query Match
Best Local Similarity
Matches 4; Conserv
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                                                                                                                                                                                                                  LENGTH: 9
TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                              FEATURE: OTHER INFORMATION: Small proteinaceous motif
                                        8 PPGF 11
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                                                                                                  24.8%;
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Pred. No.
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Search completed: January 26, 2006, 08:39:07 Job time : 3.7931 secs

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 GenCore version 5.1.6 (c) 1993 - 2006 Compugen Ltd.
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                                                                                                                                                                                                                            gallbladder stone
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                                                                                                                                                    hydroxyproline-3-b
                                                                                                                                                                            4-hydroxybenzoate
T-cell receptor be
                                                  8313290
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B39108
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A31516
S38288
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S13974
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malate dehydrogena protein QA300033 - sperm-activating p 28K protein 4412 - histone H2B - huma GTP-binding protei 20K protein 553 - translation elonga alpha-conotoxin Ep

proteasome chain 7 T-cell receptor al pev-tachykinin - p

sperm-activating

lysyl-bradykinin

histone H2B (clone histone H2B - huma nitrophorin 3 - Rh

hypothetical prote human leukocyte an

transgelin - sheep cytochrome P450 UT

43.2K bile stone

nucleolin - bovine
vitronectin - goat
phosphocarrier por
immunodeficiency v
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group III allergen hypothetical prote fibrinopeptide A phosphocarrier pro vitronectin - shee

malate dehydrogena hypothetical 1.5K insulin-like growt complement factor glutathione transf gyruvate dehydroge hypothetical prote thyroid hormone remyosin heavy chain

rotein AcfD p lectin, galactose/ 50K allergen - per photosystem cytochrome c(EDH) proteoglycan II, lipoprotein AcfD sperm-activating p
sperm-activating p
c-Ki-ras - hamster 50K allergen - per photosystem I chai nephritogenoside -VCAM-1 5'UTR bindi chlorophyll a/b-bi sperm-activating
sperm-activating photosystem proteoglycan 65K glutathione peroxi DNA-directed RNA p insulin-like growt temperature-labile hypothetical myosin light sperm-activating photosystem I 14. ribosomal protein l-aminocyclopropan cell receptor prote chain a ø

ALIGNMENTS

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R;Hortsch, M.; Bieber, A.J.; Patel, N.H.; G
Neuron 4, 697-709, 1990
A;Title: Differential splicing generates a
A;Reference number: PH0082; MUID:90262720;
A;Accession: PH0082
                                                                                                                                                                Eur. J. Biochem. 133, 39-46, 1983
A; Title: Further characterization of the three polypeptide chains A; Reference number: S26506; MUID:83209648; PMID:6852033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Homo sapiens (man)
C;Date: 23-Feb-1996 #sequence_revision 23-Feb-1996 #text_change 09-Jul-2004
C;Accession: F57789
R;Binette, J.P.; Binette, M.B.
                                                                        A; Cross-references: UNIPROT: Q7M2N0; UNIPARC: UPI000017C4E3
                                                                                           A; Molecule type: protein A; Residues: 1-10 < JAN>
                                                                                                                                                  A;Reference number: S26506;
A;Accession: S26506
                                                                                                                                                                                                                                      collagen alpha 1(VI) chain - bovine (fragment)
C;Species: Bos primigenius taurus (cattle)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
C;Accession: $26506
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C;Species: Drosophila sp.
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 16-Jul-1999
C;Accession: PH0082
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                                                                                                                                                                                                                          R; Jander, R.; Rautenberg, J.; Glanville,
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A; Residues: 1-17 < HOR>
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A;Accession: F57789
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Query Match
                                                      Keywords: hydroxyproline
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Similarity 60.0%;
                                   site: hydroxyproline (Pro)
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Pred. No.
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Pred. No. 1.3e+02;
3; Mismatches 6
 Score
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 28;
                                     #status experimental
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79;
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N;Alternate names: p-hydroxybenzoate 3-hydroxylase C;Species: Comamonas testosteroni

;Date: 10-May-1996 #sequence_revision;Accession: PT0089

19-Jul-1996

#text_change

4-hydroxybenzoate 3-monooxygenase (EC 1.14.13.2) -

Comamonas testosteroni (fragment)

A; Molecule type: proce

protein

A;Reference number: PT0089 A;Accession: PT0089 A; Description: Purification and

R;Tsugita, A. submitted to JIPID, May 1996

characterization of p-hydroxybenzoate 3-hydroxylase

from

RESULT PT0089

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A;Cross-references: UNIPARC:UPI000017C5B4
C;Comment: spermatozoa must undergo capacitation and the acrosome reaction to become cap
C;Keywords: glycoprotein; semen
                                                                                                                                                                                                 A;Title: Isolation and biochemical characterization of the A;Reference number: A60801; MUID:88000873; PMID:3651543 A;Accession: B60801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Accession: S54712

R;Chaudhuri, S.; Messing, J.

MOI. Gen. Genet. 246, 707-715, 1995

A;Title: RFLP mapping of the maize dzrl locus, which regulates methionine-rich A;Reference number: S54712; MUID:95206245; PMID:7898438

A;Accession: S54712
                                                                                                                                                                                                                                                                                       acrosome stabilizing factor small chain - rabbit (fragment) C;Species: Oryctolagus cuniculus (domestic rabbit) C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_chC;Accession: B60801
                                                                                                                                                                                                                                                       C;Accession: B60801
R;Wilson, W.L.; Oliphant, (
Biol. Reprod. 37, 159-169,
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A;Residues: 1-20 <WIL>
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A;Residues: 1-15 <CHA>
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;Species: Zea mays (maize)
;Date: 23-Aug-1995 #sequence_revision 19-Oct-1995 #text_change 09-Jul-2004
                                                                            Query Match
Best Local
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Pred. No. 3.4e+02;
3; Mismatches 4
                                                          Score 28; DB 2; Le
Pred. No. 4.7e+02;
Pred. No. 5;
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RESULT 9

S65433

R;Wijffelb, G.; Fitzgerald, C.; Gough, J.; Riding, G.; Elvin, C.; Kemp, D.;
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A;Title: Limited heterogeneity of T cell receptor variable region gene usage in juvenil A;Reference number: A49048; MUID:92387250; PMID:1387614
A;Accession: C49048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: UNIPROT:Q7M1D8; UNIPARC:UPI0000175264
C;Superfamily: 4-hydroxybenzoate 3-monooxygenase
C;Keywords: FAD: homodimar. ovinced.....
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A; Accession: PS0210
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submitted to JIPID, April
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A;Experimental source: patient EV, IL-2R+ synovial T-cells
A;Note: sequence extracted from NCBI backbone (NCBIP:113265)
C;Keywords: T-cell receptor
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                                                                                                                                                                                                                                                                                      ;Cross-references: UNIPROT:Q7M281; UNIPARC:UPI000017B0F9;Experimental source: germ, bran, strain Nihonbare;Comment: molecular weight 28K, pI 7.3.
                                                                                                                                                                                                                                                                                                                                           Molecule type: protein
Residues: 1-16 <TSA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                           BK protein 4209 - rice (strain Nihonbare) (fragment)
;Species: Oryza sativa (rice)
;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;Species: Ĥomo sapiens (man)
;Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text_change 30-May-1997
                                                                                                                                                                                                                                      Query Match
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 Fitzgerald, C.; Gough, J.; Riding,
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Pred. No. 5.2e
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Pred. No. 5.2e+02;
3; Mismatches 1
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1.2e+02;
2;
 G.; Elvin,
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C;Accession: Bouders R;Kimura, M.; Sueyoshi, T.; Morita, T.; Tanaka, K.; Iwalia R;Kimura, M.; Sueyoshi, T.; Morita, T.; Tanaka, K.; Iwalia Adv. Exp. Med. Biol. 247A, 359-367, 1989
A;Title: Ornitho-kininogen and ornitho-kinin: isolation, A;Title: Ornitho-kininogen and Ornitho-kinin: 2603803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: protein
A;Residues: 1-9 xNAK-
A;Cross-references: UNIPROT:Q7LZI7; UNIPARC:UPI000002CF4A
C;Keywords: bradykinin; hydroxyproline; skin
F;3/Modified site: hydroxyproline (Pro) #status experiment
                                                                                                                                            A; Cross-references: UNIPROT: Q7LZ50; UNIPARC: UPI000017A4F8
                                                                                                                                                               A; Molecule type: protein A; Residues: 1-9 < KIM>
                                                                                                                                                                                                                                                                                                                       C;Species: Gallus gallus (chicken)
C;Date: 11-Dec-1992 #sequence_revision 11-Dec-1992 #text_change 16-Aug-2004
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A;Title: Occurrence of Hyp(3)-bradykinin in methanol extracts A;Reference number: A43065; MUID:80024576; PMID:488255
A;Accession: A43065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hydroxyproline-3-bradykinin - frog (Heleophryne purcelli)
C;Species: Heleophryne purcelli
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bur. J. Biochem. 237, 414-423, 1996
A;Title: Cloning and characterisation of angiotensin-converting
A;Reference number: S65431; MUID:96215437; PMID:8647080
A;Accession: S65433
A;Status: preliminary
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peptide

garden dagger wasp

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C;Accession: A60579
R;Conlon, J.M.; Hicks, J.W.; Smith, D.D.
Endocrinology 126, 985-991, 1990
A;Title: Isolation and biological activity of a novel kinin ([Thr(6)]bradykinin)
A;Reference number: A60579; MUID:90126625; PMID:2298179
A;Accession: A60579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Yasuhara, T.; Mantel, P.; Nakajima, T.; Piek, T. Toxicon 25, 527-535, 1987
A;Title: Two kinins isolated from an extract of the venom A;Reference number: A94322; MUID:87293024; PMID:3617088 A;Accession: A26744
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C;Species: Megascolia flavifrons (garden dagger wasp)
C;Date: 08-Mar-1989 #sequence_revision 08-Mar-1989 #text_change 05-Oct-2004
                                                                                                                                       A;Molecule type: protein
A;Residues: 1-9 <CON-A;Residues: 1-0 = A;CON-A;Cross-references: UNIPARC:UPI000012DF29
C;Comment: This peptide increases aortic blood flow but, unlike bradykinin in mammalian C;Keywords: plasma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Piek, T.; Hue, B.; Mantel, P.; Nakajima, T.; Pelhate, M.; Yasuhara, T. Comp. Biochem. Physiol. C 96, 157-162, 1990
A;Title: Threonine(6)-bradykinin in the venom of the wasp Colpa interrupta A;Reference number: A61057; MUID:91130217; PMID:1980872
A;Accession: A61057
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8
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C;Species: Pseudemys scripta (slider)
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 05-Oct-2004
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C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 05-Oct-2004
C;Accession: A61057
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A;Residues: 1-9 <PIE>
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A;Residues: 1-9 <YAS>
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:Keywords: bradykinin; presynaptic neurotoxin; venom
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RESULT 17
S13279
S13279
Ile-Ser-bradykinin - human (fragment)
N;Alternate names: T-kinin
C;Species: Homo sapiens (man)
C;Date: 02-Dec-1993 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S13279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                uradyKınin - common frog
C;Species: Rana temporaria (common frog)
C;Date: 09-Sep-1994 #sequence_revision 0
C;Accession: A61363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 16
A61358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Anastasi, A.; Erspamer, V.; Bertaccini, G. Comp. Biochem. Physiol. A 14, 43-52, 1965 A;Title: Occurrence of bradykinin in the skin of A;Reference number: A61363 A;Accession: A61363
                                                                                                                                           C;Accession: S13279
R;Wunderer, G.; Walter, I.; Eschenbacher, B.; Lang, M.; Kellermann, J.; Kindermann, G. Biol. Chem. Hoppe-Seyler 371, 977-981, 1990
A;Title: Ile-Ser-bradykinin is an aberrant permeability factor in various human malignan A;Reference number: S13279; MUID:91166748; PMID:2076202
A;Accession: S13279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bradykinin-like peptide I - Japanese pond frog C;Species: Rana nigromaculata (Japanese pond frog) C;Date: 09-Sep-1994 #sequence_revision 09-Sep-1994 C;Accession: A61358
                                                                    A;Cross-references: UNIPROT:Q7M4P1; C;Keywords: bradykinin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Residues: 1-9 <NAK>
A;Cross-references: UNIPROT:Q7LZ54; UNIPARC:UPI000017A4F0
C;Keywords: skin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chem. Pharm. Bull. 16, 769-770, 1968
A;Title: Occurrence of a new active peptide on smooth muscle
A;Reference number: A61358; MUID:68412013; PMID:5677638
A;Accession: A61358
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                                                                                                         A;Molecule type: protein A;Residues: 1-11 <WUN>
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Pred. No. 4.9e+02
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Pred. No.
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megascoliakinin - garden dagger wasp

N,Alternate names: 6-Thr-bradykinin-Lys-Ala

C;Species: Megascolia flavifrons (garden dagger wasp)

C;Date: 08-Mar-1989 #sequence_revision 08-Mar-1989 #text_change 05-Oct-2004

C;Accession: B26744, A28609

R;Yasuhara, T.; Mantel, P.; Nakajima, T.; Piek, T.

Toxicon 25, 527-535, 1987

A;Title: Two kinins isolated from an extract of the venom reservoirs of the solitary was A;Reference number: A94322; MUID:87293024; pMID:3617088

A;Accession: B26744

A,Alccession: B26744
vespakinin M - hornet (Vespa mandarinia)
C;Species: Vespa mandarinia
C;Date: 09-Sep-194 #sequence_revision 0
C;Accession: A61360
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A61360
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F;11/Binding site: sulfate (Tyr) (covalent)
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C;Keywords: sulfoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Br. J. Pharmacol. 27, 479-485, 1966
A;Title: Pharmacological data on phyllokinin (bradykinyl-isoleucyl-tyrosine A;Reference number: A61365; MUID:67179312; PMID:5970899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 phyllokinin - Rohde's leaf frog
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A; Accession: A28609
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R;Nakajima, T.; Piek, T.; Yashuara, T.; Mantel, P.
Toxicon 26, 34, 1988
A;Title: Two kinins isolated from the venom of Megascolia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: protein
A;Residues: 1-11 <YAS>
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                                                                                                                                                                                                                                                                                                                                                                                                                          Status: preliminary
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                #sequence_revision 09-Sep-1994 #text_change 05-Oct-2004
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A;Cross-references: UNIPROT:P83060; UNIPARC:UPI000017A4F5
C;Keywords: skin
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A61359
                                                                                                                         A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-13 <YAS>
                                                                                                                                                                                                                   A;Title: Active peptides
                                                                                                                                                                                                                                              R;Yasuhara, T.; Hira, M.; Nakajima, T.; Yanaihara, N.; Yanaihara, C.; Hashimoto, Chem. Pharm. Bull. 21, 1388-1391, 1973
                                                                                                                                                                                                                                                                                                                               bradykinin-like peptide - Bombina orientalis
C;Species: Bombina orientalis
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A;Title: Chemical investigation of the hornet (Vespa xanthoptera A;Reference number: A61359; MUID:87187853; PMID:264186
A;Accession: A61359
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C;Keywords: hydroxyproline; venom
F;4/Modified site: 4-hydroxyproline (Pro) #status experimental
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Chem. Pharm. Bull. 24, 2896-2897, 1976
A;Title: Vespakinin-M, a novel bradykinin analogue containing hydroxyproline,
A;Reference number: A61360; MUID:77114342; PMID:1017116
A;Accession: A61360
                                                                                                                                                                                                    A;Title: Active peptides on smooth muscle in the skin of Bombina A;Reference number: A61361; MUID:73256822; PMID:4732297
                                                                                                                                                                                                                                                                                       C;Date: 09-Sep-1994 #sequence_revision 09-Sep-1994 #text_change 05-Oct-2004
C;Accession: A61361
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C;Accession: A61359
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C;Species: Vespa xanthoptera
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24.8%; Score 26; DB 2; Length 13; 100.0%; Pred. No. 6e+02; rive 0; Mismatches 0; Indels
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A;Molecule type: protein
A;Residues: 1-17 <70S>
A;Residues: 1-17 <70S>
A;Cross-references: UNIPROT:P57672; UNIPARC:UPI0000138459
A;Cross-references: UNIPROT:P57672; UNIPARC:UPI0000138459
C;Superfamily: vespulakinin
C;Keywords: antihypertensive; bradykinin; glycoprotein; venom
F;1-17/product: vespulakinin 1 #status experimental <MAT1>
F;3-17/product: vespulakinin 2 #status experimental <MAT2>
F;3-17/gegion: bradykinin-like
F;3,4/Binding site: carbohydrate (Thr) (covalent) #status expe
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A36279
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A;Title: On the third active peptide on smooth muscle in the skin of Rana nigromaculata A;Reference number: A61362; MUID:69117202; PMID:5751736
A;Accession: A61362
A;Status: preliminary
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R;Nakajima, T.
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C;Species: Rana nigromaculata (Japanese pond frog)
C;Date: 09-Sep-1994 #sequence_revision 09-Sep-1994 #text_change 05-Oct-2004
C;Accession: A61362
                                                                                                                                                                                                                                               R;Yoshida, H.; Geller, R.G.; Pisano, J.J.
Biochemistry 15, 61-64, 1976
A;Title: Vespulakinins: new carbohydrate-containing bradykinin derivatives.
A;Reference number: A61339; MUID:76114777; PMID:1247511
A;Accession: A61339
                                                                                                                                                                                                                                                                                                                                                                                                           vespulakinin 1 - eastern yellowjacket
N;Contains: vespulakinin 2
C;Species: Vespula maculifrons (eastern yellowjacket)
C;Date: 17-Jul-1994 #sequence_revision 07-Oct-1994 #text_change 09-Jul-2004
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C;Species: Lumbricus terrestris (common earthworm)
C;Date: 18-Jan-1991 #sequence_revision 18-Jan-1991 #text_change 09-Jul-2004
C;Accession: A36279
C;Accession: A36279
R;Jiang, X.C.; Inouchi, J.; Wang, D.; Halpern, M.
J. Biol. Chem. 265, 8736-8744, 1990
A;Title: Purification and characterization of a chemoattractant from electric shock-indu
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A;Molecule type: protein
A;Residues: 1-15 <JIA>
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A;Accession: A36279
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A;Residues: 1-14 <NAK>
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  4/Binding site: carbohydrate (Thr) (covalent) #status experimental
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Search completed: January 26, 2006, 08:05:06 Job time : 11 secs

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1: uniprot_sprot:*
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25-OCT-2004 (TrEMBLrel. 28, Last amoutation update)
25-OCT-2004 (TrEMBLrel. 28, Last amoutation update)
20S proteasome beta subunit (Fragment).
Vitis vinifera (Grape).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta
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PIR; F57789; F57789.
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Gallbladder stone matrix protein 2, 41K (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Carvalho M.B., Caeiro A.S., Submitted (JUL-2004) to the EMBL; AY684130; AAU04834.1; GO; GO:0005829; C:cytosol; I
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Pred. No. 1.9e+03;
1; Mismatches (
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annotation update)
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RESULT 5
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AC Q7MIPS;
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CS Zea mays (Maize
CS Spermatophyta;
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Q7M2NO;
  Eukaryota; Viridiplantae; Streptophyta; En
Spermatophyta; Magnoliophyta; Liliopsida;
PACCAD clade; Panicoideae; Andropogoneae;
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SEQUENCE
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla;
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01-MAR-2004 (TrEMBLrel. 26, Last sequence up
01-MAR-2004 (TrEMBLrel. 26, Last annotation
Collagen alpha 1 (VI) chain (Fragment).
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NUCLEOTIDE SEQUENCE.
MEDLINE-22294456; PubMed=12407086;
Kida M., Ariga T., Shirakawa T., Oguchi H., Sakiyama Y.;
Kida M., Ariga T., Shirakawa T. form of amelogenesis impe
                                                            zeın zp22/6 protein.
Zea mays (Maize).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jander R., Rauterberg J., Glanville R.W "Further characterization of the three and human short-chain collagen (intima Eur. J. Biochem. 133:39-46(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pecora; Bovidae;
NCBI_TaxID=9913;
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Homo sapiens (Human).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
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Pred. No. 2.3e+03;
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collagen).";
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a; Poales; Poaceae;
e; Zea.
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                     STRAIN=ATCC 4797;

Langenheim J.F., Ulrich R.L.;

Submitted (WAR-2002) to the EMBL/GenBank/DDBJ databases.

EMBL, AF496531, AAQ07223.1; -, Genomic_DNA.

GO; GO:0016974; F:histidine-tRNA ligase activity; IEA.

GO; GO:0016974; F:ligase activity; IEA.

Aminoacyl-tRNA synthetase; Ligase.

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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Histidyl-renn synthetase (EC 6.1.21) (Fragment).
Lactobacillus delbrueckii (subsp. lactis).
Bacteria; Firmicutes; Lactobacillales; Lactobacilla
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Gonzalez Perez M.P.,
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MEDLINE-95206245; PubMed=7898438; DOI=10.1007/BF00290716; Chaudhuri S., Messing J.;

"RFLP mapping of the maize dzrl locus, which regulates me 10 kDa zein accumulation.";
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Q7SM54;
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Viruses; Retroid viruses; Ret
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PIR; S54712; S54712.
SEQUENCE 15 AA; 1
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AF529962; AAP87693.1;
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EMBL/GenBank/DDBJ databases
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PIR; PT0089; PT0089.

HSSP; P20586; IIUT.
GO; GO:0018659; F:4-hydroxybenzoate
InterPro; IPR002938; Moxy_FAD_bindin
Pfam; PF01494; FAD_binding_3; 1.

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01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
4-hydroxybenzoate 3-monooxygenase (EC 1.14.13.2) (Fragment)
Comamonas testosteroni (Pseudomonas testosteroni)
                                                                                                                       Tsugita A.;
Submitted (MAY-1996)
                                                                                                                                                                                                                                                                                                                                            )8_COMTE
Q7M1D8_COMTE PRELIMINARY;
                                                                                                                                                                                       Comamonadaceae;
NCBI_TaxID=285;
                                                                                                                                                                                                                                Bacteria; Proteobacteria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wong C.M., Dilworth M.J., Glenn A.R.; "4-Hydroxybenzoate hydroxylase (pobA) is in Rhizobium leguminosarum by viciael.";
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HSSP; P20586; 1K0I.
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
4-hydroxybenzoate hydroxylase (EC 1.14.13.2) (Fra
                                                                                                                                                          PROTEIN SEQUENCE.
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01-MAY-2000 (TrEMBLrel. 21, La
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Chaperonin-60 LS3 fragment (F)
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SEQUENCE
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Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;

Ehrhartoideae; Oryzeae; Oryza.
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RESULT 12
Q9N195 BOVIN PRELIMINARY;
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OC EUKARYOTA; Metazoa; Chordat
OC EUKARYOTA; Metazoa; Chordat
OC Mammalia; Eutheria; Laurasi
OC PECOTA; BOVIDAE; BOVINAE;
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RP MEDLINE=21599054; PubMed=11
RA Ariza F., Harrison B., Drin
RT "The assignment by linkage
RT 22 to bovine chromosome 5 a
RL Anim. Genet. 3:3371-374 (200
DR EMBL; AF217654; AAF26420.1;
FT NON_TER 1
FT NON_TER 1
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SEQUENCE 19 AA; 2151 MW;
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                               EMBL; M34542; AAA39607.1;
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Flavell R.A.;
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Mammalia; Eutheria; Laurasiatheria;
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Horton R.M., Loveland B.E., Parwani A., Pease L.R., I
"Characterization of the spontaneous mutant H-2Kbm29
gene conversion in H-2 occurs at a higher frequency t
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BRK1_RANNI
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28-FEB-2003 (Rel. 4
13-SEP-2005 (Rel. 4
[Thr6]bradykinin.
TISSUE=Skin secretion;

MEDLINE=22217713; PubMed=12230583;

Chen T., Orr D.F., Bjourson A.J., McClean S.,

Rao P., Shaw C:

"Novel bradykinins and their precursor cDNAs
bellied toad (Bombina variegata) skin.";

Bur. J. Biochem. 269:4693-4700(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                BOMVA
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Q7LZ54;
                                                                                                                                                                                                                                Bombina variegata (Yellow-bellied toad).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Archeobatrachia; Bombinatoridae; Bomb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
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Bradykinin; Direct p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUL-2004 (Rel. 44, Last sequence update)
10-MAY-2005 (Rel. 47, Last annotation update)
Bradykinin-like peptide I.
Rana nigromaculata (Japanese pond frog).
Eukaryota; Metazoa; Chordaca; Craniaca; Vertebrata;
Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea;
                                                                                                                                                                                                           NCBI_TaxID=8348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Occurrence of a new active peptide on smoothe skin of Rana nigromaculata hallowell.";
                                                                                                                                                                     PROTEIN SEQUENCE,
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1017 MW;
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3687D771A9C86777 CRC64
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                                                                                                   O'Rourke M.,
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                                                                                                                                                                     SPECIFICITY
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Ranidae; Rana
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RESULT 16
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                                                                        GO; GO:00056
GO; GO:00457
GO; GO:00455
Bradykinin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KNL3 CYI
P83659;
                                                                                                                                                                                                                                                                                                                                                MEDLINE-21203862; PubMed=11306139; DOI-10.1016/S0041-0101(00)00262-2; Konno K., Hisada M., Naoki H., Itagaki Y., Yasuhara T., Juliano M.A., Juliano L., Palma M.S., Yamane T., Nakajima T.; "Isolation and sequence determination of peptides in the venom of the spider wasp (Cyphononyx dorsalis) guided by matrix-assisted laser desorption/ionization time of flight (MALDI-TOF) mass spectrometry."; Toxicon 39:1257-1260(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cyphononyx dorsalis (Spider wasp).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
Pompilidae; Cyphononyx.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUL-2004 (Rel. 44, 05-JUL-2004 (Rel. 44, 10-MAY-2005 (Rel. 47,
                                                             SEQUENCE
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                                                          GO:0005615; C:extracellular space; IDA.
GO:0045776; P:negative regulation of blood pres
GO:0045987; P:positive regulation of smooth mus
dykinin; Direct protein sequencing; Vasoactive;
UENCE 9 AA; 1074 MW; 3393D771A9C86777 CRC64;
                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: Secreted.
TISSUE SPECIFICITY: Expressed by the venom gland.
MASS SPECTROMETRY: MW=1074.58; METHOD=MALDI; RANGE=1-9;
NOTE=Ref.1.
                                                                                                                                                                                                                                                                                                                       FUNCTION: Produces in vitro muscle and constriction of i
                                                                                                                                                                           s Swiss-Prot entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                  SIMILARITY: Belongs to the bradykinin family.
                                                                                                                                                                as
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SUBCELLULAR LOCATION: Secreted.
TISSUE SPECIFICITY: Expressed by the skin glar
SIMILARITY: Belongs to the bradykinin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: Produces in vitro relaxation of rat arterial smooth muscle and constriction of intestinal smooth muscle.
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; Vasodilator.
9 AA; 1074 MW;
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Direct protein sequencing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; (
Archosauria; Aves; Neognathae;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Testudines; Cryptodira; Testudinoidea; Emydidae; Trachemys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chemical structure.";
Adv. Exp. Med. Biol. 247A:359-367(1989)
PIR, B60246;
SEQUENCE 9 AA; 1040 MW; 339D3771A9C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=90102072; PubMed=2603803;
Kimura M., Sueyoshi T., Morita T., Ta
"Ornitho-kininogen and ornitho-kinin:
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PubMed=2298179;
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10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
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(Rel. 44, Created)
(Rel. 44, Last sequence update)
(Rel. 47, Last annotation update)
(Bradykinyl-isoleucyl-tyrosine Oa rohdei (Rohde's leaf frog).

O-sulfate).

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RESULT 20
Q7LZI7 9NEOB
Q7LZI7 9NEOB PRELIMINARY;
AC Q7LZI7;
AC Elephryne Metazoa; Chordatu
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
CC Amphibia; Batrachia; Anura;
C1
RN ANAcjima T., Yasuhara T., E
RN C2
RN PROTEIN SEQUENCE.
RN PUMBed=48B255;
RA Nakajima T., Yasuhara T., E
RT "Occurrence of Hyp3-bradyki
RT South African leptodactylid
RI Experientia 35:1133-01379)
DR PIR; A43065.
SQ SEQUENCE 9 AA; 1060 MW;
RESULT 21
BRKP PHYRO
ID BRKP P
AC Q7LZ52
DT 05-JUL
DT 05-JUL
DT 10-MAY
DE Phyllo
OS Phyllo
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PIR; A61363; A61363
STOLIENCE 9 AA; 1
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"Occurrence of Hyp3-bradykinin in methanol extracts of the South African leptodactylid frog Heleophryne purcelli.";
Experientia 35:1133-0(1979).
PIR; A43065; A43065.
SEQUENCE 9 AA; 1060 MW; 3393D775B9C86777 CRC64;
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01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
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MEGFL
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                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Venom;
Nakajima T., Piek T., Yashuara T., Nakajima T., Piek T., Yashuara T., Nakajima T.,
                             This Swiss-Prot entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse as long as its content is in no way modified and this s
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Pharmacological data on phyllokinin (bradykinyl-isoleucyl-tyrosine "Pharmacol and bradykinyl-isoleucyl-tyrosine.";
Br. J. Pharmacol 27:479-485(1966)
-!- SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                               -i- SUBCELLULAR LOCATION: Secreted; venom reservoirs-i- SIMILARITY: Belongs to the bradykinin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEIN SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=87293024; PubMed=3617088; DOI=10.1016/0041-0101(87)90288-1; Yasuhnara T., Mantel P., Nakajima T., Piek T.; "Two kinins isolated from an extract of the venom reservoirs of the solitary wasp Megascolia flavifrons.";
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Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygo
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Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea;
Phyllomedusinae; Phyllomedusa.
NCBI TaxID-8394;
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crita; Aculeata;
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PIR; B26744; B26744;

GO; GO:0005615; C:ext:

GO; GO:0045776; P:neg:

GO; GO:0045987; P:pos
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Q7M4P1;
PROTEIN SEQUENCE.
MEDLINE=91166748; PubMed=2076202.
Wunderer G., Walter I., Eschenbac
                                                                  Homo sapiens (Human
Eukaryota; Metazoa;
                                                                                              01-MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
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                                                          Mammalia;
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EMBL; U88358; AAC39858.1; -;
                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                          Lee H., Maihle N.J.;
"Isolation and characterization of
                                                                                                                                                                                                                                                                                                                                               ITISSUE=Ovarian carcinoma;
MEDLINE=98345147; PubMed=9681822;
                                                                                                                                                                                                                                                                                                                                                                  NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria;
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Eukaryota; Metazoa;
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                                                                                       [le-Ser-bradykinin
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HUMAN
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GO:0005615; C:extracellular space;

GO:0045776; P:negative regulation c

GO:0045987; P:positive regulation c
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etazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                             (Human)
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Euarchontoglires; Pi
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Pred. No.
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Bradykinin-like peptide.
33867393D771A9C8 CRC64;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                           four alternate c-erbB3 transcripts
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VESMA STANDARD; PRT; 12 AA.
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Q'M3T3;
05-JUL-2004 (Rel. 44, Created)
05-JUL-2004 (Rel. 44, Last sequence update)
10-MAY-2005 (Rel. 47, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kindermann G;
"Ile-Ser-bradykinin is an aberrant permeability factor in various
human malignant effusions.";
Biol. Chem. Hoppe-Seyler 371:977-981(1990).
DIR; S13279; S13279.
NON_TER 1 1
NON_TER 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Meoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea; Vespidae; Vespinae; Vespa.

NCBI TaxID=7446;
[1]
                                                                                                                                                                                    MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                         This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=77114342; PubMed=1017116;
Kishimura H., Yasuhara T., Yoshida H., Nakajima T.;
Kishimura H., Yasuhara T., Yoshida H., Nakajima T.;
"Vegpakinin-M, a novel bradykinin analogue containing hydroxyproline, in the venom of Vespa mandarinia Smith.";
Chem. Pharm. Bull. 24:2896-2897(1976).
-!- FUNCTION: Bradykinins are a potent but short-lived agent of arteriolar dilation and increased capillary permeability (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                 Vasodilator.
                                                                                                                                                                                                                               Bradykinin; Direct protein sequencing; Hydroxylation; Vasoactive;
                                                                                                                                                                                                                                               PIR; A61360; A61360.
                                                                                                                                                                                                                                                                               removed.
                                                                                                                                                                                                                                                                                                                                                                     -!- SUBCELLULAR LOCATION: Secreted; venom reservoirs.
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34F513C44C75B9C8 CRC64;
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